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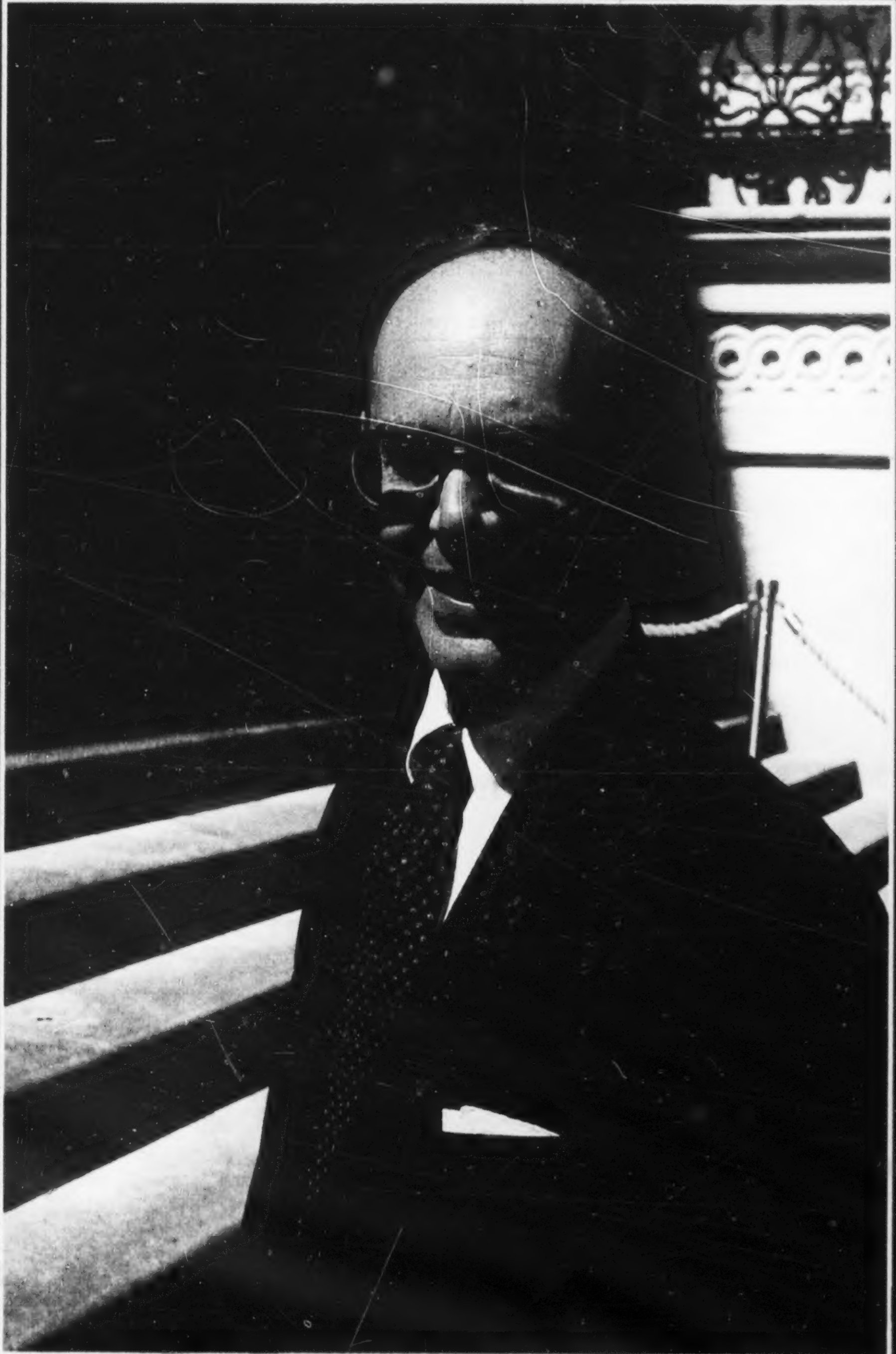

SEARS' CAPITOL CRAFTSMAN

Man of the Year
Stan Sender
uses all the
right tools to keep
government intervention
in tune with
business transactions

VOL. 85, NO. 110

CHILTON'S
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NOVEMBER 1986

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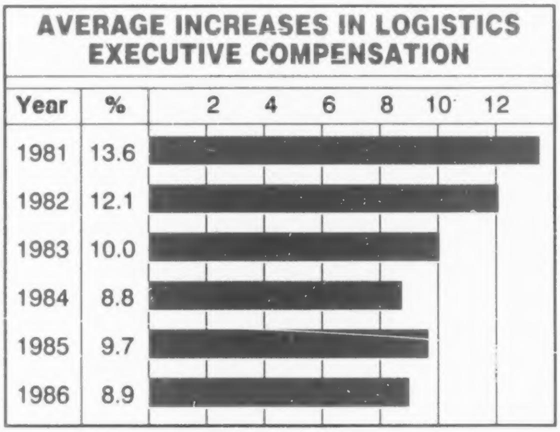

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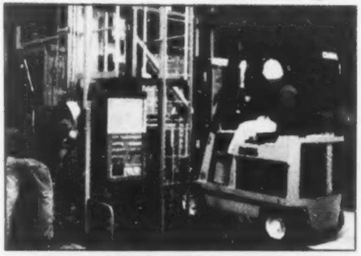

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DIALOGUE

THE SQUEEZE IS ON!

Surprise, surprise. With only an occasional exception, readers responding to our September Dialogue question—which asked how management responded to the transportation department's 1987 budget proposal—said they were told to hold the line. Even though many said their 1987 line item for freight expenses was decreasing—indicating that transportation/distribution people are successfully cutting their freight costs—a majority said their budgets and head counts will be coming down in 1987. Here's what readers had to say:

"I was told to cut cost to the bone and *justify.* Fuel budgeting during the recent price drop was the hardest item to justify."—**Mac Gough, traffic manager, Fuller Brush Co., Great Bend, Kan.**

"We need to be protected from cutbacks because of the strong bottom-line input we produce."—**Barry Recht, manager of transportation operations, Babcock & Wilcox, Barberton, Oh.**

continued

Compared with '86, my department's 1987 budget will be:	
larger	33%
smaller	42%
the same	25%
Compared with '86, my department's 1987 head count will be:	
larger	25%
smaller	42%
the same	33%
The budget line that was reduced most for '87 was:	
freight bill	44%
administrative	22%
salaries	11%
equipment	11%
The budget line that was increased most for '87 was:	
salaries	39%
computer processing	23%
administrative	15%
equipment	15%
Our '87 budget figures are based on:	
a percentage over last year	50%
sales forecasts	50%

QUESTION OF THE MONTH

FORGING A PARTNERSHIP?

Many progressive companies claim to have entered a new era of transportation purchasing. They are forging "strategic alliances" with their carriers, they say, where the needs of both shipper and carrier are considered equally.

A study conducted by the Council of Logistics Management contends that forming such "win/win" links with carriers is a primary factor in achieving logistics excellence. In such a partnership, it's stressed, both sides negotiate with an "open book" policy. Expectations concerning performance, price, and freight commitment are clearly drawn.

Who benefits most from these partnerships? The huge companies with lots of volume, and therefore lots of leverage? Or can smaller shippers negotiate equally effective alliances with their carriers?

Beyond that, what are the real differences between "strategic alliances" and good old-fashioned, good-faith negotiation? Is this just a fancy new name for a commonsense concept and a common business practice?

Please give us your reaction to the newfound popularity of "strategic alliances" on the card below.

DIALOGUE

November 1986

- The "strategic alliance" concept ______does/______does not appear to be something new in transportation procurement.
- I ______agree/______disagree that forging strategic alliances with a **smaller** number of carriers is the best way to ensure dependable, quality service.
- I ______agree/______disagree that strategic alliances are a more viable concept for companies with large freight bills ($100 million and up) than for smaller shippers and receivers.
- The advantages of strategic transportation alliances would appear to be (number by importance): ______predictable service; ______long-term cost stability; ______simplicity of carrier management; ______freedom to concentrate on other aspects of logistics management; ______other (explain: ______________________________)
- The drawbacks of strategic transportation alliances would appear to be (number by importance): ______lack of exclusivity and confidentiality; ______excessive time required for ongoing education of and about carriers; ______financial uncertainty within for-hire transportation sector; ______inflexibility to try out new vendors and services; other (explain: ______________________________)

In my opinion, the difference between "strategic alliances" and traditional shipper/carrier relationships is:

____

____

____

____

NAME (print) ______________ TITLE ______________

COMPANY ______________ PHONE ______________

ADDRESS ______________________________

CITY ______________ STATE ______ ZIP ______

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"All of this talk of strategic alliances between shippers and carriers is great, but I can't help but be reminded of the coin toss before a football game. Both sides meet in the middle of the field and shake hands. Then a few minutes later they're on opposite sides again, trying to bash each other's brains out."—**C.W. Allen, president, ARA Trailblazer Inc., Carrollton, TX.**

•

"I must tell you what an honor it is to be the first of 350 speakers."—**John Houseman, kicking off CLM's 1986 conference.**

•

"Many (ocean) carriers say that service contracts helped bring about the current deterioration in freight rates. That's just plain wrong. Overcapacity is the cause. We see the only major defect of service contracts being the lack of total confidentiality regarding prices. This is what gives carriers the chance to drive rates lower and lower. Section 18 of the Shipping Act should be amended to allow total confidentiality of rates under a service contract agreement."—**Clifford Sayre, director, logistics, DuPont & Co.**

"Management argues that good programs are already in place—but administrative costs need to be cut."—**John P. Teschel, traffic manager, Morton Co., Akron, Oh.**

"We *must* remain flat for 1987."—**G. Bolduc, assistant director of traffic, Cigna Service Co., Bloomfield, Conn.**

"Management told me that the budget must 'fall into line with manpower reductions.' "—**Ed Kupa, senior manager of physical distribution, Wang Labs, Tewksbury, Mass.**

"I am required to show what my productivity increases will be. Management told me to reduce the percentage of cost to sales."—**H. Nichols, distribution services manager, R. R. Donnelley & Sons, Warsaw, Ind.**

"The message I heard was, 'Give me a flat budget this year—period!"—**P. Eichfeld, III, shipping supervisor, Cigna, Philadelphia.**

"The increase in freight costs was fully understood, especially after securing savings in warehousing costs in excess of 18 percent."—**Jack Deckert, general traffic manager, W. A. Taylor & Co., Miami.**

"Because we were 25 percent under budget for 1986, it was difficult to obtain the increases I deemed necessary to maintain our growth rate of 30 to 45 percent yearly."—**Stephen Misovic, director of distribution, Laura Ashley, Inc., Mahwah, N.J.**

"This is the first year we formally prepared and submitted a budget. When management saw what we were asking, the response was, 'Good Lord, we didn't realize your department's expenses were so large. You must be empire building."—**Steve A. Meutzer, traffic manager, Applied Biosystems, Inc. , Foster City, La.**

DISTRIBUTION COST TRENDS

	1986	1985
	Change in	
	% of sales	$/cwt
Finished goods transportation	− 6.3	−1.6
Warehousing	−10.6	−6.3
Order processing/customer service	+ 4.6	−0.3
Distribution administration	+ 0.3	+3.5
Inventory carrying cost @ 18%	− 3.8	+0.3

Source: Herbert W. Davis & Co.

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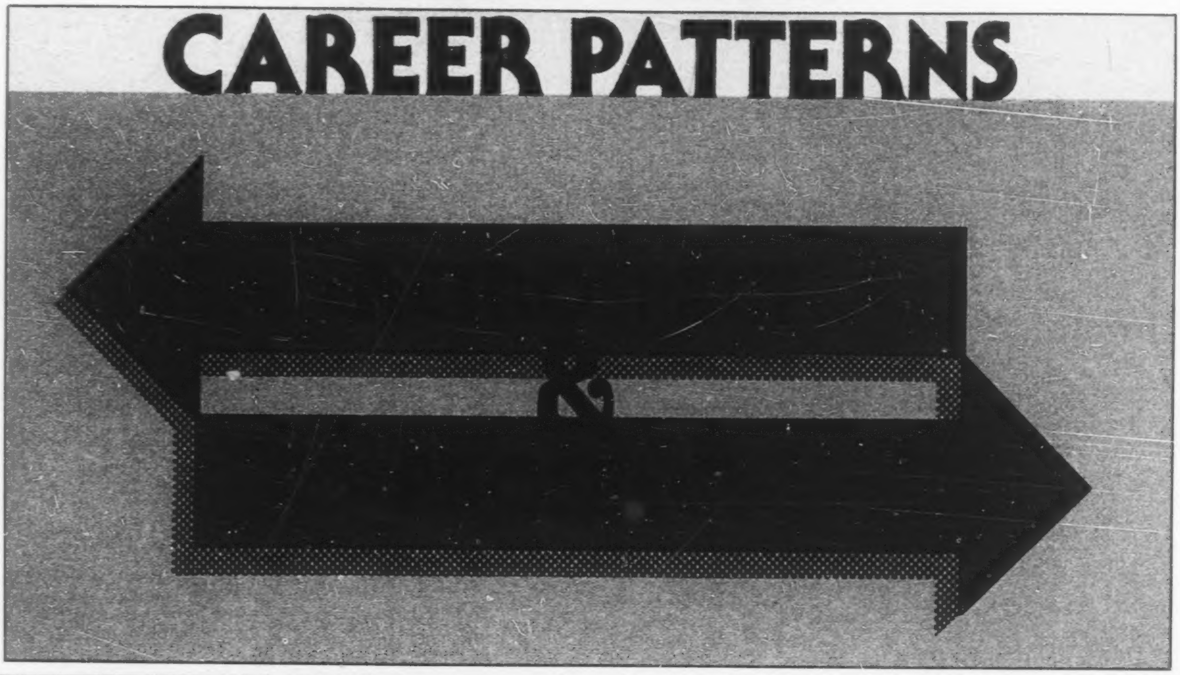
CAREERS

CAREER PATTERNS



The journey's half over, but the rocketship ride to the outer limits of logistics change and innovation is just now gathering thrust.

By Bernard J. LaLonde, Ph.D

Covering 30 years in the evolution of logistics is indeed a challenging task—particularly when we haven't yet completed the 30-year period we want to study. In fact, we're only halfway there.

For this year's report, I've reviewed the results of the last 15 years of our OSU Career Patterns study, searching for commonalities or central themes in the data base. Then I've looked over the input our respondents provided about the prospects for the *next* 15 years, through the year 2000.

Another challenge has been thinking creatively about the format of this year's report. I considered a range of different approaches and decided that the most productive and effective approach would be to structure my thoughts around a series of six propositions. To me, a proposition is a statement I believe to be true and is supported by all of the evidence I have reviewed, but that I cannot prove in a scientific or statistical sense.

ABOUT THE AUTHOR

Dr. Bernard J. LaLonde is Mason Professor of Transportation and Logistics at the Ohio State University (OSU) in Columbus. Dr. LaLonde joined the OSU faculty in 1969 and began the OSU Career Patterns study in 1972. The study is presented each year at the Council of Logistics Management (CLM) annual conference and then published in the November issue of DISTRIBUTION. The text we are publishing this year includes some extemporaneous remarks Dr. LaLonde made while presenting his findings to last month's CLM conference in Anaheim, Calif.

Before we get on with my propositions, though, the academician in me says I ought to make some brief observations about the limitations of the data and the analysis. Each year when we take our survey, we send out a questionnaire to a selected list of distribution and logistics executives. In analyzing trends from 1972 through 1986, we are making an assumption that the respondent base (the people who send questionnaires back to us) is the same each year. We believe the sample base is relatively homogeneous and that this is a reasonably safe assumption. But we should be cautious about interpretation.

We should also be cautious about assuming that we are dealing with a "representative" sample. We send the questionnaire out to people who we believe are on the cutting edge of what is happening in the distribution/logistics area. It is not "representative" of all businesses, but rather of those businesses which are innovative in our functional field. Of the many hundreds of thousands of businesses in the U.S., a fair number have never heard of logistics, nor do they have executives with the term "logistics" or "distribution" in their job titles. The information we are looking at reflects what forward-thinking, logistically-oriented companies have done over the past

continued

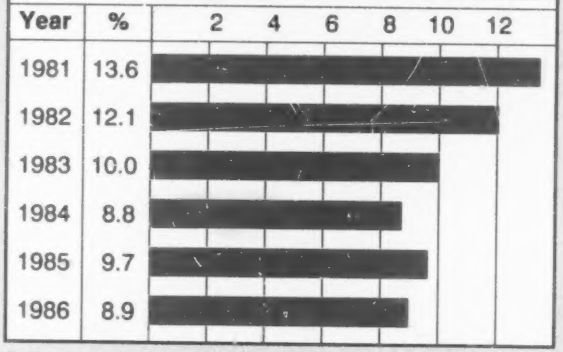
AVERAGE SALARY LEVELS OF TOP QUARTILE– LOGISTICS MANAGERS, DIRECTORS, AND VICE PRESIDENTS

Year	Manager	Director	Vice Pres.
1972	$35,400*	$37,500*	$45,000*
1976	35,500	49,100	74,750
1981	61,300	77,000	118,300
1986	N.A.	104,600	165,800

*estimated

Managers are no longer included in the database; there are now enough executive titles to carry the impressive salary standard.

AVERAGE INCREASES IN LOGISTICS EXECUTIVE COMPENSATION



Salary increases have well outpaced inflation, marking a corporate repositioning that's taken a permanent hold.

15 years, and will do over the next 15.

This year we sent the questionnaire out to 419 distribution/logistics executives. This target population included directors and vice presidents. We opted not to include manager-level executives because of the special nature of this year's questionnaire. Our response to this year's mailing was around 20 percent, which was somewhat lower than in the past. We speculate that this lower response was due to the difficulty of responding to some of this year's questions.

Of the responses we did get back, we feel we have a good balance of industries represented, although we're a little overweight in data from the food industry. But it's reasonably well-balanced. Again, we want to stress that we're not trying to take a cross-sample, but instead are trying to find the good thinkers who are on the cutting edge. With that in mind, I can say I have a real good feeling about the data's face validity–it makes good sense.

THEMES FROM THE PAST

Proposition No. 1: There has been a significant corporate repositioning of the distribution/logistics function over the past 15 years.

In 1972, the preponderant title for those individuals managing the distribution function was "manager." Today, it is just as common to find a distribution vice president, with a six-figure income and the perks and power that go along with that senior executive position.

In our surveys of the early 1970s, 70 to 80 percent of the sample were distribution managers, with a handful of distribution directors and vice presidents. In the 1986 survey, we were able to identify over 400 distribution vice presidents and directors.

We puzzled over how to present the statistical evidence of this repositioning. Perhaps the most convincing evidence is the average salary levels for the top quartile of the logistics executives (see table at top left, above).

Salary level is a reasonably accurate surrogate measure for power and positioning in the corporate structure. When we examine the historical evidence, we find that the salary of the logistics vice president has increased four-fold over the past 15 years, from $45,000 per year to $165,000 per year, and that the salary of the logistics director has increased three-fold, from $37,500 to $104,000. It should be noted that during this same period, the Consumer Price Index increased approximately two and a half times.

To reinforce this notion, we looked at average salary increases for logistics executives and found they have been averaging 9 to 12 percent per year (see chart at top right, above). In just the past year, the average salary increase was 8.9 percent, versus an inflation rate of around 4 percent. The gap is significant, and the "stability of change" over time further assures us we aren't dealing with a phenomenon that's a flash in the pan.

Another important shift in the positioning of the logistics function has occurred over the past three or four years, when there has been an integration of the materials flow movement in a significant subsegment of the sample population. This usually takes the form of organizationally combining one or more of the functions which are not traditionally viewed as integrated in the material flow chain.

For example, we have seen a growing number of firms include the purchasing/procurement function, or the forecasting function, or even some aspects of the information systems function into a more generalized material flow organizational model. This shift could signal a dramatic change in organizational integration over the next decade.

Proposition No. 2: The functional responsibility of the distribution/logistics executive has broadened significantly over the past 15 years.

It is obvious that the distribution/logistics executive of 1986 has a considerably broader base than the distribution/logistics executive of 1972. This base has broadened in at least two important ways.

continued

First, the functional activities grouped under the logistics function have expanded dramatically. This conclusion is consistent with the repositioning proposition; as logistics becomes positioned higher in the firm, it encompasses a wider range of activities.

In 1972, the basic activities of the firm were concentrated on transportation and warehousing, and very little time was spent at the interface with other major corporate functions such as marketing, production, finance, and data processing. In a short decade and a half, this environment has evolved dramatically. Many vice president-level logistics executives now spend a third to one-half of their time developing policy and defining relationships between other major corporate functions, and they spend less than one-fifth of their time in the traditional transportation and warehousing areas. More and more of the typical executive's time is spent seeking consensus and coordination for logistical programs which span internal corporate functions – marketing and finance, for example – and also bridging the barriers between the corporation and external customers, vendors, and third-parties.

Similarly, a range of new functions, many of them technology-intensive, has put new demands on the typical distribution/logistics executive. Some of these demands have entailed new task environments (procurement, international) and some have involved rapidly changing technology (order entry/processing). It's interesting that in our first survey in 1972, only 14 percent of our respondents listed order entry/processing as a functional responsibility; this year, 52 percent said it came under their purview. And in 1972, procurement didn't even exist as a possibility on our questionnaire; this year, it applied to 44 percent of those we surveyed.

In a short 15 years, then, logistics has become a great deal more than "kicking boxes." Significant new demands have been made on the time, talent, knowledge, and energy of logistics executives. This type of boundary-spanning management requires negotiation skills, planning skills, and an entirely different "mind set."

Proposition No. 3: The demographics of the distribution/logistics manager have undergone shifts in the past 15 years.

When we started the Career Patterns study back in the early 1970s, we found that we were dealing with a well-educated, relatively young population with a diverse educational background. When we searched for trends in the data, we found that the 1986 executive was a little younger still, had more formal education, was more involved in international dimensions, and probably was more broadly trained and educated than any predecessor. However, most of these changes were modest in direction, and did not represent major shifts in the demographics of the logistics executive. But our respondents do seem to now be reaching executive status earlier in their career cycles.

The box on page 48 provides some insight into current educational trends in logistics. Among our other findings in this area were that the average age of a distribution/logistics director and the distribution/logistics vice president dropped in the early half of the 1980s. We also found that the post-1980 distribution executive is more involved in the international aspects of the firm's business and is more likely to travel internationally on corporate business.

Another significant demographic change of the past few years has involved the number of women entering the logistics career arena. In 1972 there would have been no need to inquire as to the gender of the logistics executives in our Career Patterns survey. While the proportion of female chief logistics executives is still very small, its growth is on a steep

continued

PROJECTED CHANGE IN TOTAL LOGISTICS COSTS
1987 over 1986

% Increase or Decrease	% of Respondents
Over 8% increase	9.5%
8%	4.8%
7%	2.4%
6%	2.4%
5%	14.2%
4%	9.5%
3%	11.9%
2%	4.8%
1%	2.4%
0%	11.9%
Decrease over 1986	26.2%
Average change	+1.6%

Respondents were surprisingly confident about the outlook for lowering overall costs next year.

ANTICIPATED CHANGES IN ELEMENTS OF LOGISTICS COSTS
1987 over 1986

Cost Component	Average Change
Rail	2.5%
Motor – LTL	2.4%
Motor – TL	1.4%
Private warehousing	2.9%
Public warehousing	3.3%
Fuel – gasoline	1.5%
Fuel – diesel	0.3%
Inventory carrying	1.1%

Modest increases are projected for the costs of key services, and for the price of money.

incline. At the Ohio State University, approximately one-third of our student enrollment in the logistics curriculum is female—and these women are among our best and brightest.

Proposition No. 4: The current focus of the logistics-distribution executive is significantly different from the focus of his/her counterpart 15 years ago.

As part of our survey this year, we asked for some open-ended comments and received a number that we thought suggested a typical point of view.

For example, one respondent noted that "total integration of the pipeline—from manufacturing to dealer/distributor to customer—to effect the lowest total cost will be mandatory in highly competitive, slow-growth industries. Competitors will continue to be aggressive for share, with resultant price pressures and the need to protect margins."

Another survey respondent noted that "the information explosion will generate a more centralized management approach."

Since one of the major preoccupations of many logistics managers is costs, we put cost questions in this year's Career Patterns survey and asked the respondents to forecast the level of increase for their logistics costs in 1987 over 1986 (see table at bottom left, page 40).

It was a little bit of a surprise that one out of four respondents projected costs going down in 1987 versus 1986. In total, almost four out of 10 said they would either hold the line or reduce costs to make the total cost of laying the product down in front of the customer less this year than last. The average anticipated change in logistics costs for next year was an increase of 1.6 percent.

We then asked about some selected components of logistics costs and found that, consistent with the general conclusion on costs, increases of modest proportion were projected (see table at bottom right, page 40).

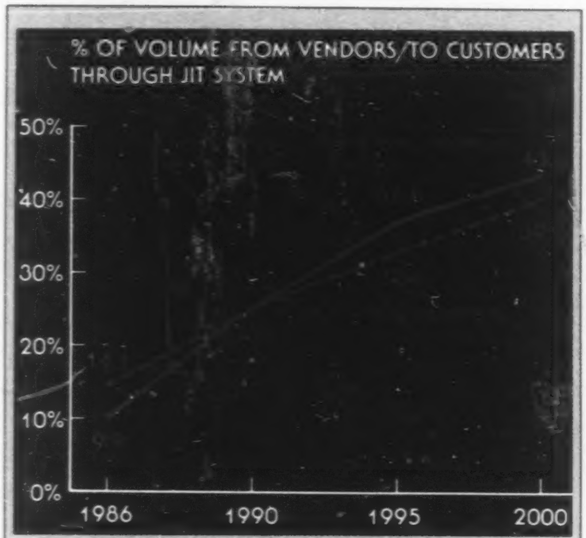
Concern with cost pressures shifted from an emphasis on taking down transportation and warehousing costs to a more strategic concern focused on providing the firm with an opportunity to be a low-cost vendor on the street, through effective logistics design. Similar shifts into a more strategic type of format were observed in both the customer service area and the inventory management area.

Then we asked the respondents to identify the major factors which will influence the growth and development of the corporate logistics function during the next decade.

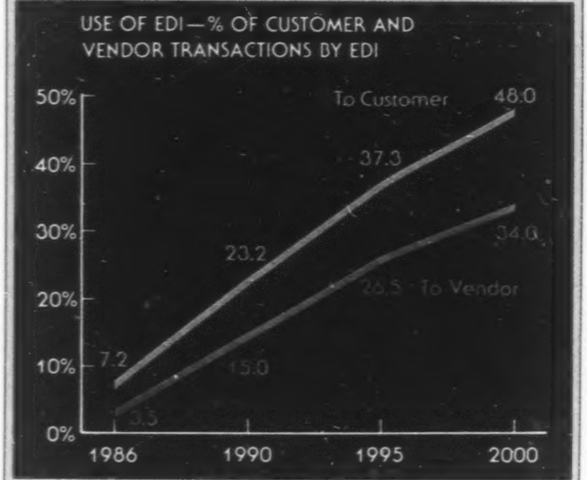
The questions of logistics integration, or of the integration of information systems to drive logistics systems, were not even mentioned in 1976 and in 1981. Yet in 1986 these items represented almost a quarter of the responses.

Similarly, computer development/cost was not mentioned in the 1976 and 1981 surveys, but represented 11 percent of the responses in 1986.

In short, the logistics executive of 1986 thinks about the logistics environment differently than his/her counterpart did in 1972. Cost performance has become a more strategic question, and the all-pervasive impact of technology is easily identified in the responses.



How to deal with fewer distribution locations and faster inventory turnover at the locations that remain? One answer is JIT...



...**and a second answer is Electronic Data Interchange, which is expected to catch on in triplicate in the next four years alone.**

THOUGHTS FOR THE FUTURE

Proposition No. 5: One of the primary accountabilities of the logistics executive over the next 15 years will be for effective and efficient management of change.

To this point, we have painted a picture of the changing environment of the logistics executive. The traditional concern with costs and the traditional activity focus has broken down, and the executive's concern is more clearly identified as a strategic one. Further, the function has been repositioned in many firms where the executive has active input into senior executive councils on issues of strategy and policy; logisticians are finally privy to senior manage-

continued

ment and policy on an ongoing basis. The remaining question is one of future focus and direction.

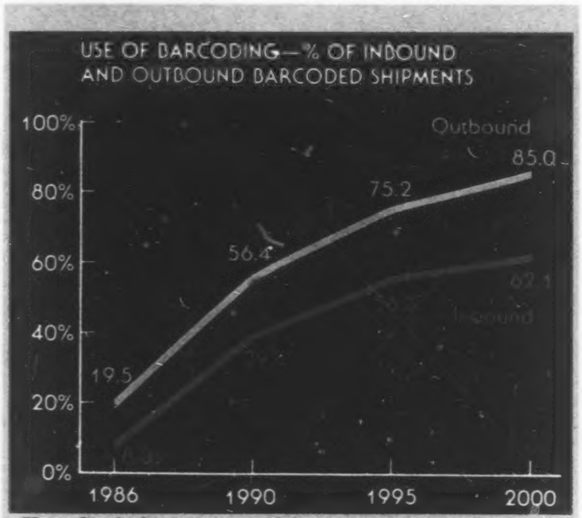
To build on the base of the last 15 years and project the direction and scope of change over the next 15 years, we asked for an indication of how many warehouses were currently being used by each of the respondents' companies. The data (see table at top right, page 46) suggest that a typical company now has about nine of its own warehouses, divided between plant sites and field locations. About 75 percent of the sample also use public warehouses; of that 75 percent, each respondent makes use of about eight additional public warehouse locations, positioned primarily for field distribution rather than manufacturing. About 25 percent of the sample use contract warehousing, and they use approximately three contract warehouses, again primarily positioned as field distribution locations.

Starting with this baseline, we asked about future directions in terms of the number of inventory deployment locations. What we found is that the number of corporate warehouses is expected to drop about 25 percent between now and 1990, and then stabilize at that new number. The average would drop from nine warehouses to seven warehouses. There would be a similar but more gradual drop in the public warehouse units, and the number of contract warehouses would be relatively stable. One respondent explained that "consolidation of warehouses into larger central ones in metropolitan areas such as Los Angeles, Dallas, San Francisco, the Midwest" was a trend for the future. Another said that "the trend will be to fewer and larger DCs, to optimize labor-occupancy cost." In both cases, a productivity-scale type of argument is being made.

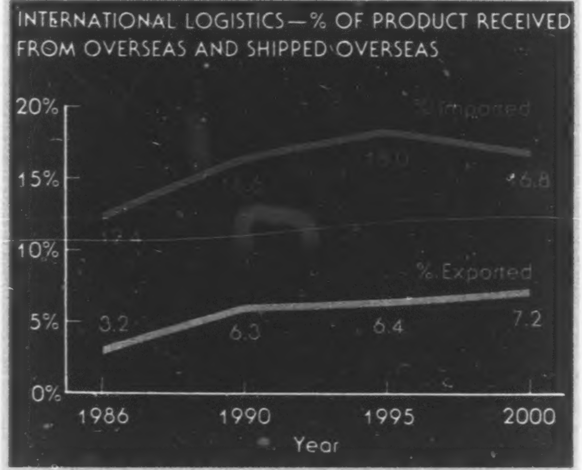
The flip side of this question focuses on how to design logistics systems in light of the move to fewer inventory locations and higher customer demands. We asked a question about projected inventory turnover and found some interesting results (see table at bottom right, page 46). Our respondents estimated that over the next 15 years, there will be significant increases in inventory turn rates at both plant and field locations—from 35 to 45 percent, in fact, with over 15 percent of the increase coming by 1990.

One response to lower inventory without lower customer service is more widespread utilization of just-in-time (JIT) inventory methods. The chart at top right on page 42 indicates respondents' estimates of the percent of volume they plan to receive from vendors—and send to customers—utilizing a just-in-time system. Customer flow volume is expected to increase from 14 to 25 percent over the next four years, and vendor volume from 10 to 25 percent. By the year 2000, respondents felt, almost 40 percent of the inventory moving through the channel would be driven by some type of just-in-time system.

A second answer might be in the types of information systems our respondents perceive for the future. As the second chart on page 42 shows, those surveyed estimate a tripling of electronic data interchange (EDI) transactions in the period 1986-1990. Likewise, the percentage of vendor transactions driven by EDI systems will increase from 3.5 percent today to 15 percent by 1990. Over the next 15 years, it is projected that EDI/vendor transactions will increase tenfold, and that EDI transactions will represent almost half of all customer transactions.



You don't have to read between the lines to see how dominant bar coding will become by the end of the century.



Turbulent world affairs? Rising international tensions? Not where logistics is concerned; stability is the long-range forecast.

It also would appear that the bar coding revolution is well upon us (see chart at top right, above). Our sample reported that around 20 percent of outbound shipments are now bar coded. By 1990 it is anticipated that this percentage will nearly triple, and by the year 2000 our sampling expects to see 85 percent of all outbound shipments carry some kind of bar code. Data on inbound shipments are not quite as dramatic, but are nonetheless impressive. Inbound shipments will go from the present 8 percent to 39 percent bar coded in 1990, and by the year 2000, 62 percent of all inbound shipments will be bar coded.

When we asked the respondents about international involvement and future directions for international product flow (see chart at bottom right,

continued

p. 44), we discovered that the percentage of goods imported will rise from around a current 12 percent to almost 17 percent in 1990. At that point, imports are expected to stabilize. On the other hand, exports will double, from a current 3 percent to about 6 percent in 1990. Exports will then gradually edge up to over 7 percent of product flow.

Recognizing that transportation deregulation has caused some substantial changes in the way buyers and sellers of transportation services interact, we included a question on contract rates (see middle chart on right). Our respondents report that almost 50 percent of their current volume moves under contract rates. They expect a gradual increase in the percentage of their volume moving under contract, to almost two-thirds by the year 2000.

One cannot view the future without an overwhelming sense of an increase in the pace of change. As one of our respondents summed up: "Constant change (will be required) to remain competitive. Standing still will (mean) sliding backwards."

Proposition No. 5 states that what might separate the good managers from the not-so-good ones over the next decade and a half will not be how they manage warehouses or transportation fleets or computers, but how they manage change in an efficient and effective way. The real challenge will be in migrating change into the firm without the dysfunctional consequences of sudden shifts in processes or technology that usually occur.

Proposition No. 6: A key factor in managerial success for the logistics executive will be his/her ability to position the logistics function as a significant driver in the strategic success of the business.

It is difficult, if not impossible, to generalize about the logistics process in such a way that it would characterize every individual company or industry. Businesses are very much like individuals in their response to change. Some seek innovation, others reject it. Some have a high tolerance for risk, others are risk-averse.

However, there are some guideposts which offer broad parameters in interpreting the evolution of the logistics concept. These guideposts suggest a four-stage evolutionary process for the logistics concept (see table on page 48). They reflect how companies deal with logistics change, and show the functional stages that companies typically go through as they implement change.

In the first stage, which we have termed "Functional," the focus is on integrating direct distribution activities such as transportation and warehousing. In this stage, the primary metric, or measurement device, is the cost of performing that activity. In our view, this was the dominant focus from the mid-1960s until the mid-1970s.

The next stage in the process is "Information Integration." In this stage, activity (warehousing, transportation) and information are both viewed as part of the logistics process. In terms of function, customer service or a downstream channel focus provides the primary function, with the metric logically becoming system response time to customer service requirements. This stage was a dominant theme from the mid-1970s until early in the decade of the 1980s.

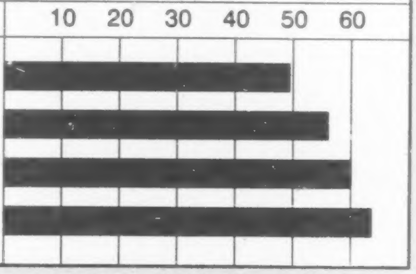
PROJECTED NUMBER OF DISTRIBUTION CENTERS BY TYPE OF LOCATION (Units)

Year	Corporate DC	Public Warehouse	Contract Warehouse
1986	8.8	7.6	2.8
1990	6.8	7.2	2.5
1995	6.6	6.7	2.5
2000	6.6	6.4	2.8

The push for productivity and reduction of labor and occupancy costs has all but wiped out double-digit warehouse networks.

CONTRACT TRANSPORTATION – % OF FREIGHT VOLUME MOVING UNDER CONTRACT RATES

Year	%
1986	49.5
1990	56.3
1995	60.0
2000	63.9



The passionate rush has subsided; now shippers and carriers are settling in with contracts as a way of life.

PROJECTED INVENTORY TURNOVER BY PLANT LOCATION AND FIELD WAREHOUSE LOCATION

Year	Plant	Field Warehouse
1986	8.3X	7.2X
1990	9.5X	8.8X
1995	10.6X	9.7X
2000	11.2X	10.5X

For every item in the logistics pipeline, there are now many compelling reasons why it should turn, turn, turn.

The third stage in the process is where many firms currently find themselves. This stage, which might be termed "Interfunctional Integration," requires a managerial integration between major corporate functions such as production, marketing, finance, and logistics. The perspective resulting from this is

continued

EVOLUTION OF THE LOGISTICS CONCEPT

1970	1980	1990	2000
STAGE:			
Functional	Information	Integration	Strategic
FUNCTIONALITY:			
Trans/whse	Customer service	Inter/Intra functional	Globalization
DRIVER:			
Activity	Information	Trade-off	Profit
METRIC:			
Cost	Response	Marginal efficiency	Risk Strategy

Many firms have already made it to the integrated stage of logistics management; only a select few have moved into the strategic realm.

one of total material flow integration, where tradeoffs are fully visible to senior management and decisions are made in accordance with the marginal efficiency or marginal contribution of the individual functions *vis a vis* the overall objectives of the firm This stage will probably be dominant throughout the 1980s and into the 1990s for many firms.

The final stage, and the one that is probably most speculative due to its longer-term implementation horizon, is "Strategic Integration." Here, logistics becomes a cornerstone to the strategic thrust of the firm. It is global in that it spans both geographic and ownership boundaries. It shifts from a cost center to an important source of profitability for the firm, and performance is measured in terms of risk rather than in terms of cost.

BULGING WITH CHANGE

A consistent pattern of change began to emerge in the mid-1970s—one that suggests logistics has been moving from an activity-driven function to a strategy-driven function. The evidence suggests that the direction of change will be maintained over the next decade and a half, and that the velocity of change will increase. More companies will move through the evolutionary stages at a stepped-up pace.

"Logistics will play a major role in corporate strategic planning," noted one respondent. Added another: "Supply chain management will become more popular as groups of companies manage resources as partners—from source to user. They will take JIT beyond its current concept and put great emphasis on EDI and on developing trust-based partnerships with customers and vendors."

It has been said that "profit is the payment you get when you take advantage of change." In logistics today, we can take that a step further to add that "change is the name of the game when you look to commit to quality." If you think the last 10 years have been exciting, you ain't seen nothing yet. ★

Single copies of this article are available at no charge. Input 416 on Reader Service Card.

NEW COURSES TO SUCCESS

One always interesting part of the Career Patterns study is respondents' replies to the question: "If you were offered the opportunity to return to school this fall for three months and could design the curriculum yourself, what subjects would you study?"

Until the early 1980s, the dominant response was "finance." Typically, three or four out of 10 respondents would list finance as their first choice.

In the past several years, though, there have been some significant shifts (see table below). Six out of 10 respondents now say they would design a curriculum which would include either computers/modeling, strategic planning, or marketing as a first choice. In 1981, only 3 out of 10 respondents would have made the same decision.

The survey also asks for insight into educational background. It's now a given that logistics is a field requiring a high degree of schooling. Based on this year's returns, there is now a greater than 90 percent chance that the logistics executive will be a college graduate, and more than a 40 percent chance that the executive will have a graduate degree. That represents a 50 percent increase over 1972 in the case of the graduate degree, and about a 10 percent increase at the undergraduate level.

While practitioners at the top level of the field are repositioning themselves educationally, those just coming out of school with a logistics or transportation degree will be glad to hear that their field has been officially designated as a "hot" one in academic circles. This summer, no less a source than the *New York Times* News Service circulated a report—which was picked up by major newspapers across the country—proclaiming that "logistics offers some interesting job possibilities." The report used comments from OSU's Bud LaLonde and from Paul Zinszer, professor of transportation at Syracuse University, to illustrate how corporate America is discovering logistics as a ticket to significant cost reductions.

A current shortage of logistics majors, Zinszer reported, has pushed entry-level salaries up as high as $30,000 for undergraduates, and $38,500 for those with master's degrees. More colleges are starting up logistics programs than dropping them, he added. Bud LaLonde confirmed the trend: "Yes, we have people beating on our doors for logistics majors," he said. "There is more action than ever before, building on the previous upward trend. There is a dearth of good professors as well."

—Joe Barks

EDUCATIONAL NEEDS

Response (first choice)	Year (%)			
	1972	1976	1981	1986
Finance	16	32	38	17
Computers/ modeling	4	11	11	27
Strategic planning	4	13	16	23
Marketing	5	4	5	11

Logistics managers aren't buying the idea that finance is the ticket anymore. They're plugging into new paths now.

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OUSING REVIEW

CHILTON'S

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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE DECEMBER 1986

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PROFILES OF WAREHOUSING QUALITY

THE COMPUTER CHALLENGE

GETTING A GLOBAL GRIP ON LOGISTICS

MID-SIZED RAILROADS: CAUGHT IN THE MIDDLE ?

VOL. 85, NO. 12

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Now warehousing's got the word, and quality programs are setting, and raising, standards for the industry as a whole.

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Industry gridlock lay ahead. So two computer firms turned to traffic 'cops' who put them in the fast lane to logistics savings.

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NEXT MONTH
Make way for the 'Baby Eights'

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BORDER PATROL

Fluctuations in the value of the dollar, changes in the regulatory climate and modal service capabilities – all will influence U.S./Canadian transborder manufacturing and distribution for the next four to five years. That's what you told us in response to our October Dialogue question.

"We will develop a distribution center, analyze railcar capabilities and decrease duty drawback, with the use of the distribution center for return material." – **Stephen Flewelling, operations manager, Wool Rest, Wilmington, Mass.**

"We will increase our sales effort in Canada. Every year our transborder shipping increases." – **G. Belcher, general traffic manager, VAW America, Inc., Ellenville, N.Y.**

"We plan to eliminate our distributor relationship and service our customers directly." – **John Skurulis, traffic manager, Artos Eng. Co., New Berlin, Wis.**

"We have begun operations in a new manufacturing plant in the Toronto area. We will be looking for new market areas." – **Carl McCoy, traffic manager, Pretty Products, Coshocton, Oh.**

continued

I expect to arrange more U.S./Canadian transborder transportation in '87 than in '86	79%
less transborder transportation	7%
about the same amount of transportation	14%
Freight rates for transborder traffic will increase following Canadian transportation reform	21%
freight rates will decrease	43%
freight rates will remain the same	36%
I expect to use more carriers following Canadian reform	36%
fewer carriers	14%
about the same number of carriers	50%
Exchange rate fluctuation during the next two years will prove advantageous to Canadian carriers	54%
Canadian locations will become more of an option when looking for manufacturing sites, etc.	29%
For transborder movements, I prefer single mode carriers with lines in both countries	50%

QUESTION OF THE MONTH

TRUCKLOAD TRADEOFFS

"Common wisdom" has long held that the "big" money in for-hire trucking is in LTL service. Even with the expense of labor and terminals, the yield for efficient LTL lines is three times greater than that of their truckload counterparts.

But recently, the bottom line has been as bright for some TL carriers as it has for the big LTL names. And there's been a flurry of start-ups and expansions in the TL sector, backed by investment capital and marketing support from well-run companies that aren't prone to speculative investments.

We're talking to carriers to find out why TL has become attractive. Now we want to hear from you – the shippers who are expected to reconfigure their freight accordingly.

Are carriers correct in assuming you can plan and schedule effectively enough to take advantage of TL rates and still meet just-in-time service objectives? Is LTL discounting still deep and attractive enough to make it possible for you to get "truckload" rates without having to spend time consolidating full trailer quantities?

Please provide us with a "truckload" of input on these questions by filling out the card below.

DIALOGUE

December 1986

- Of the for-hire trucking service my company pays for, ________ percent is LTL and ________ percent is truckload (on a weight basis).
- My company tends to use for-hire truckload service most for (check ONE only): ______inbound shipments from outside vendors; ______shipments between two company facilities; ______outbound shipments to distributors or public warehouses; ______outbound shipments direct to customers.
- When I ship a "truckload," I want it to be in a (check ONE only): ______28-foot "pup" trailer; ______medium-duty (Class 6 or 7) truck; ______40-foot trailer; ______45-foot trailer; ______48-foot trailer; ______53-foot trailer; ______other (describe: ____)
- When I ship a "truckload," the carrier is most often a (check ONE only): ______independent owner/operator; ______private carrier (either my own company's or another's); ______specialized or regional for-hire truckload carrier; ______national, general-commodity truckload carrier: ______other (describe: ____)
- Truckload shipping for me generally ______does/ ______does not require dropped trailers at my facilities. If it does, the trailers are, on average, dropped at the facility ________ hours prior to loading and picked up ________ hours after loading.

7

(Please answer both parts)
The greatest attraction of for-hire truckload service for me today is:
The greatest deterrent to my using for-hire truckload service is:

NAME (print) TITLE
COMPANY PHONE
ADDRESS
CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"You shouldn't expect shippers to mount any great groundswell of support for domestic containerization. Advanced hardware has meaning for the shipper only if carriers and third parties weave it into a business system which produces a superior service at a lower cost. Otherwise, all you have is an interesting engineering exercise."—**Lester K. Kloss, vice president, A.T. Kearney, Chicago.**

•

"Perhaps steamship operators have witnessed the most controversial technological advancement in transportation during the last decade: the jumbo ship. (This) technology was advanced to increase productivity (that means revenue) for all carriers. Increased productivity would create cost savings for the carrier and presto—instant profit. That was the theory. But theory sometimes tangles with reality, and reality usually wins. Improved productivity could only yield cost savings to the carrier having high utilization factors. And overtonnaging has militated against satisfactory utilization levels for us all."—**Thomas A. Yost, chief operating officer, Trans Freight Lines, Wayne, N.J.**

"We expect to increase exports and do little importing."—**Scott G. Emslie, president, Sunshine Glassworks Ltd., Buffalo.**

"We are looking for a lower U.S. dollar and increased transportation access—therefore greater exports."—**John C. Oshel, purchasing, Fibron Products, Inc., Buffalo.**

"We will concentrate on improving delivery times to our customers and reducing claims on both sides. We intend to establish and complete a Canadian distribution system."—**John Siekis, traffic manager, Shaw Industries, Hyde Park, Mass.**

"As an import/export company, more sales and warehousing will be needed for our expansion program, both in Canada and in U.S bordering states. Our sites will be selected after January 1, 1987.—**Guy Russo, executive vice president, Nippon Industries, New York.**

KEY BUSINESS INDICATORS

	latest month		Previous month	same period 1985	low '61-'85	high '61-'85
Inventories (billions)*	June	278.3	278.4	285.7	53.4 (5/61)	289.3 (11/85)
Shipments (billions)*	June	191.5	192.1	198.3	28.7 (1/61)	202.1 (12/85)
Exports, Reexports (millions)	June	19,070	18,270	18,103	987 (1/63)	21,434 (3/81)
General Imports (millions)	June	33,240	31,395	28,603	N/A	N/A

**Figures are seasonally adjusted*
N/A = Not Available

Source: Bureau of Economic Ananysis, Bureau of Census

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REFORM SHOULDN'T BE TOO TAXING

BY ROBERT J. BOWMAN (415) 752-4884

Skyrocketing insurance rates, expensive safety programs, spiraling costs, deregulation – you say you've got enough headaches? Get ready for one more: tax reform.

Few companies will emerge unscathed by the new tax law, and those with their own trucks are no exception. For fleet managers and their bosses, it's yet another factor in their deliberations over whether to maintain a private fleet. And while the law isn't likely to sway the decision in either direction, it's too important to be taken lightly.

For starters, there's the repeal of your investment tax credit (ITC) as of December 31, 1985. Stan Burwell, operations manager of Ace Tank and Equipment Co., says it's "a 10 percent benefit I will never have again." With this popular provision gone, private fleet operators may become gun-shy about making major capital investments, turning to leasing instead. One bright spot – you can keep your tractors on an accelerated, three-year depreciation schedule.

Assessing the Alternatives

They used to haul you off to jail for keeping two sets of books. Now it's the law. Beginning January 1, 1987, companies will be required to calculate a so-called alternative minimum tax in addition to the old method, says Winn Halverhaut of Arthur Andersen & Co.

More than a dozen items that used to merit preferential tax treatment under the standard calculation – such as tax depreciation in excess of financial statement depreciation – will be added right back into your tax base. The alternative tax rate is 20 percent, meaning you are assessed a smaller rate on a larger taxable base. Of the two rates, you pay the higher.

Private fleet managers working for manufacturers, wholesalers and retailers will face heavier administrative burdens. Fewer expenditures related to inventories will be fully deductible, and managers will have to keep a whole new set of records to show how their fleets are being used. As Halverhaut puts it, "It's going to require an awful lot of cooperation and communication between the corporate headquarters and the accounting department, tax department, systems people and fleet operator."

For some the law may hit even closer to home – in their pocketbooks. Halverhaut says managers whose pay is affected by after-tax performance "may find a little surprise when their bonus isn't as high because of the way the alternative tax applies to them."

Which companies will pay a higher alternative minimum tax? There is no pat answer, says Roger Marticke, consultant with Temple, Barker & Sloane. "You can do a fairly quick present value analysis to see whether you're better off under the new code, but without knowing how a company has treated its own investment decisions, it's hard to give a general rule."

Marticke says most companies with plans to acquire new trucks have already done so in anticipation of the retroactive loss of the ITC. "In a certain way," he adds, "the die has already been cast."

Lessors Should Benefit

Ray Rehor, vice president-taxes with Leaseway Transportation Corp., says tax reform could alter a company's decision on whether to own or lease equipment. Leasing charges remain fully deductible, he points out, and do not have to be figured into the alternative minimum tax. Combined with the loss of the ITC, that could drive companies in the direction of leasing.

Tax code or no tax code, Burlington Industries is sticking to ownership, says Ben Tyler, president of the $3 billion textile manufacturer's transportation division. In fact, the company just purchased 99 new tractors and 60 trailers.

"The operational aggravations" of leasing convinced Burlington to hold on to its 330 tractors and 1,300 trailers – despite company estimates of a slight annual savings if the equipment were acquired under a finance lease.

Tyler says it's too early to assess the impact of tax reform, although "I'm sure all that was factored in

PRIVATE FLEET COSTS – TRACTOR/TRAILER EQUIPMENT

	Cost per Mile							
Type of Equipment	**General and Administrative**		**Drivers**		**Equipment**		**Total**	
	1984	**1985**	**1984**	**1985**	**1984**	**1985**	**1984**	**1985**
Owned	$.10	$.10	$.61	$.64	$.65	$.68	$1.35	$1.42
Leased	.07	.07	.54	.55	.69	.69	1.28	1.31
Mixed	.11	.09	.67	.65	.74	.68	1.52	1.43

Source: A.T. Kearney/Private Truck Council of America

Three reasons fleets will lease more – the new tax law's elimination of the investment tax credit, lease payments are still fully deductible and, as you can see, the rising cost of owning equipment.

when the decision to own was made."

"There's no question that tax reform is going to cause a re-evaluation of the way we acquire equipment," says Stan Hirshman, operations manager of fleet transport for Kraft, Inc. The way it is now, Kraft leases 105 power units and 270 trailers from another subsidiary of the parent company. Eventually, "we may end up buying them outright," Hirshman reports.

A major East Coast-based food products company with full-service maintenance leases on its trucks and trailers is considering a switch to finance leasing. "I have to go out and get quotes on new equipment," says the company's manager of private carriage. "But it looks like this corporation is leaning toward using somebody else's money, instead of buying it outright."

PRIVATE THOUGHTS

Private fleet driver **Leon Livingston** *is "On the Road to Gold" after winning the grand prize in a contest of the same name—he'll drive away in a brand new custom spec'd* **Freightliner** *truck valued at $100,000. Livingston, a driver for C.C. Jones Produce Co. of North Little Rock, Ark., won a drawing in which 300,000 truckers participated. The contest was sponsored by Freightliner and Caterpillar Engine among others.*

•

A comprehensive guide to rail fleet management has been compiled by the **National Industrial Transportation League**. *The* **Rail User's Manual** *is available for $50 for league members, $60 for non-league members. For more information, contact NITL at 1090 Vermont Avenue, NW, Suite 410, Washington, D.C. 20005 or call (202) 842-3870.*

•

The results of the **Private Truck Council of America**'*s first annual membership vehicle census are in. The report is available to PTCA members at $250 and $350 to non-members. Contact the PTCA at 2022 P Street, NW, Washington, D.C. 20036 or call (202) 785-4900.*

•

Fleet managers who operate **Mercedes-Benz** *trucks have a new tool to help them get the most from their vehicles. Mercedes has placed into service two* **Service Support Vehicles (SSV)**, *each equipped with advanced tooling specifically designed for Mercedes-Benz truck maintenance and repair.*

Write In 441 on Reader Service Card

Not everyone believes that tax reform is a major issue for private fleet operators. "Right now I don't see anything that's going to have much of an impact," says Burwell of Ace Tank & Equipment. To him, insurance costs and the company's safety program are much bigger concerns.

Ace, which maintains a small fleet of five tractor-trailers, didn't rush out and buy trucks in anticipation of losing the ITC. "We have some equipment that I'd love to replace," Burwell acknowledges, "but there was manufacturing equipment that needed help worse. So calmer heads prevailed."

If anything, tax reform compels Burwell "to make equipment last a little longer. In effect, loss of the ITC raises the price of a truck."

Dave Berry is president of the trucking subsidiaries of Kaibab Transportation Industries, a Phoenix-based lumber products company with 150 tractor-trailer combinations. He says accounting managers, not fleet managers, will have to cope with the new administrative burdens of tax reform.

Berry isn't so certain about the effects of other parts of the law. He suspects that lease rates will rise, and that employee benefits will decrease even as their cost goes up.

Confidence With A Caveat

Fleet managers agree on at least one aspect of tax reform: taken by itself, it won't drive anyone out of the business of private carriage.

"So far it hasn't been a big enough issue to make me sway my thinking about the private fleet," Burwell says. And Hirshman insists that "it's not going to be a question of whether the fleet continues."

Still, waiting too long to ask the important questions could be hazardous. As Winn Halverhaut says, "Ignorance may be bliss for a little while. But you hear more from people when they get bit than when they get blessed. The important thing is not to wait until 1987 to start looking at the impact." □

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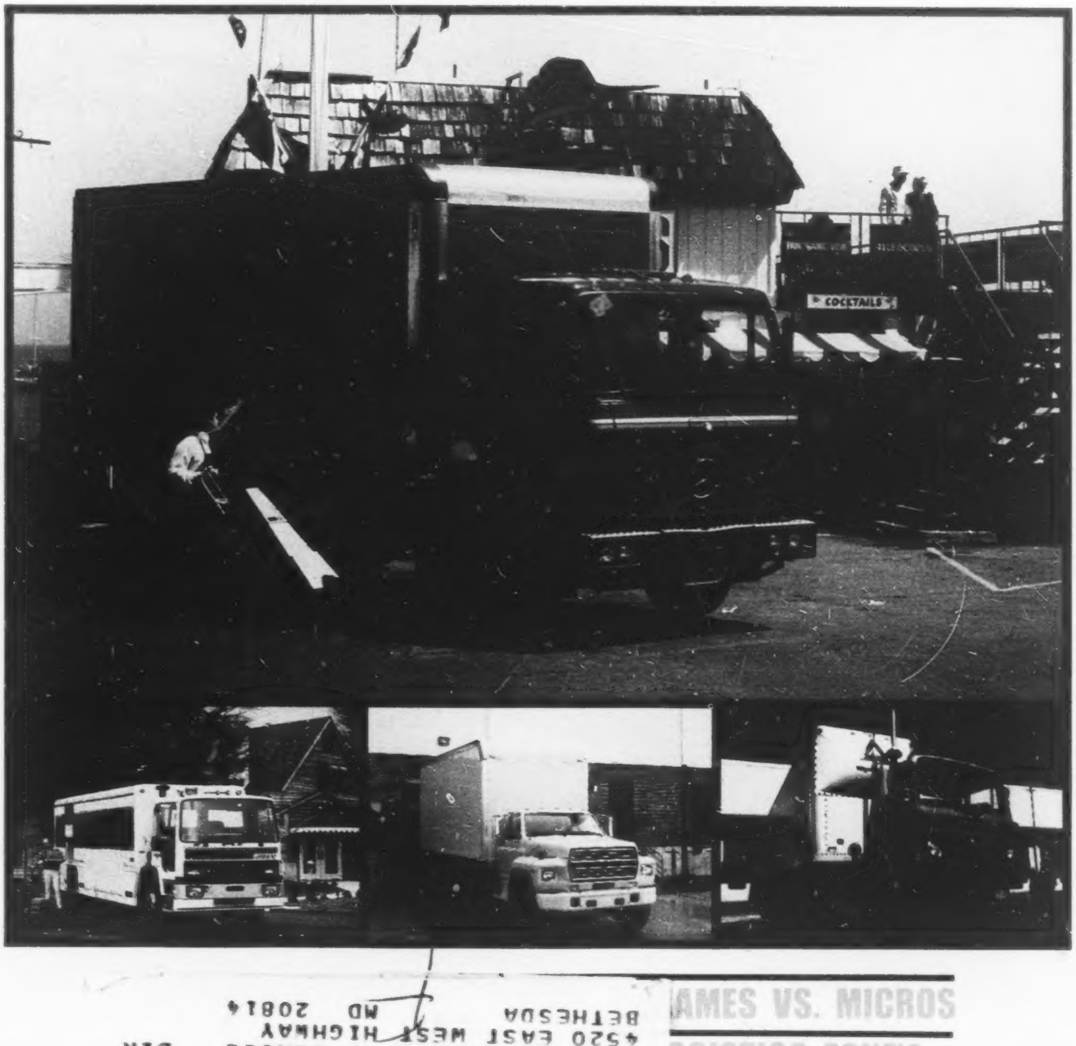
MAKE WAY FOR THE 'BABY EIGHTS'!

The new "distribution trucks" are in a class by themselves



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NEXT MONTH

Service by the Truckload

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THE PLEDGE OF ALLEGIANCE

You've no doubt been hearing quite a bit lately about "strategic alliances," the latest in shipper/carrier relationships. Adversarial postures held for years are being disavowed. Cooperation, with an eye on each other's bottom line, is now in vogue. We wanted to find out what shippers had to say about these new partnerships. How do they differ from the traditional shipper/carrier roles? As you'll see, maybe we should have asked, "Do they differ from traditional roles?"...

"There is no difference between 'strategic alliances' and traditional shipper/carrier roles. "Strategic Alliance" may be the second oldest business in the world!"—**David J. Simons, traffic manager, Harmer Simmons, Inc., Seymour, Conn.**

"Strategic alliances require the shipper and carrier to put all their cards on the table. This allows for more consistency between shipper and carrier than do 'traditional' old-fashioned techniques of 'carrier management.' "—**Tony S. Raymond, traffic manager, Baroody Spence Furniture Industries, Orange Park, Fla.**

continued

The strategic alliance concept appears to be something new in transportation procurement:	
agree	37%
disagree	63%
Alliances with a smaller number of carriers is the best way to ensure quality service:	
agree	96%
disagree	4%
Strategic alliances are a more viable concept for companies with large freight bills than for smaller shippers and receivers:	
agree	17%
disagree	83%
The biggest advantage of strategic alliances is:	
predictable service	39%
cost stability	39%
The biggest drawback of strategic alliances is:	
inflexibility to try new vendors and services	51%
lack of exclusivity	19%

QUESTION OF THE MONTH

TROUBLESOME TRADE BARRIERS

There is a growing unrest among U.S. exporters concerning pre-shipment inspections conducted by agents of foreign governments, such as the Swiss-based SGS group. These inspectors frequently demand to see proprietary information related to the products being exported. Agents gather information on the *exact* selling prices, item by item; the exact quantities being shipped; and the exact costs incurred.

Exporters point out that this information allows pre-shipment inspection companies to virtually determine the price at which a company will be allowed to sell its products in a given country. It also can be dangerous if a competitor of the *importer* is able to get hold of this information.

Even if these inspections don't prevent completion of the export transaction, they can be time-consuming and costly.

What has your experience been with pre-shipment inspections? Have they been an albatross for your export program? Have you had to raise the price of your export products because of these inspections? Let us know what you think on the card below.

DIALOGUE

January 1987

- How many shipments per month are inspected by SGS?: ________1 to 5; ________5 to 10; ________more than 10.
- Why are shipments most frequently delayed? ________delays in handling paperwork; ________difficulty in securing inspector; ________inspections not carried out within timeframe stated by SGS; ________second inspections
- Have shipments ever been delayed past the expiration of your letter of credit? ________Yes; ________No

On average, how many times does this happen in a year? ________once; ________one to five times; ________five to 10 times; ________more than 10 times

- How much do you estimate it costs you annually to present your shipments for SGS inspection? ________$0 to $10,000; ________$10,000 to $25,000; ________$25,000 to $50,000; ________more than $50,000
- Do pre-shipment inspections change your terms of sale? ________Yes; ________No.

If so, how? ____________________

- Do pre-shipment inspections increase your landed costs, and thus your selling price? ________Yes; ________No

The biggest headache my company experiences because of pre-shipment inspections is:

____

____

____

____

NAME (print) TITLE

COMPANY PHONE

ADDRESS

CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"Pre-shipment inspection companies (PICs) add unnecessary costs, delay legitimate transactions and expose both exporters and importers to the potential for competitive disaster as the data base of proprietary information in the hands of PICs grows.... Such power is unprecedented and even beyond the reach of our own government. That it should be exercised by shadowy for-profit firms is totally unaccceptable."—**Anthony Barone, president, National Export Traffic League, New York, N.Y.**

•

"Protectionist legislation would not improve American productivity, and that is one of the chief causes of our trade deficit. Protectionism winds up protecting those industries which are unproductive and inefficient. Stiff tariffs will ensure just one thing—our trading partners will match us tariff for tariff. It will be televisions versus soy beans, cars versus wheat. It will be war—trade war."—**Thomas H. Kean, governor of New Jersey.**

"I see no difference, only a new coined phrase."—**John M. Thompson, distribution center manager, Master Casualwear Corp., Ripley, Tenn.**

"Strategic alliances bring more volume to fewer carriers, (which results) in more and higher discounts to shippers."—**D. Hoffee, national traffic manager, Challenger Electric, Parkersburg, W. Va.**

"A strategic alliance forces both parties to consider profitability. The shipper must make his freight profitable to the carrier, whether by direct loading, packaging improvement, bar coding, etc. This permits the carrier to price its services accordingly."—**James J. Paule, traffic manager, Spangler Candy Co. Bryan, Ohio.**

"(A strategic alliance) ensures closer cooperation and improved levels of service for the shipper. Plus, it promotes a better understanding of each other's needs."—**Jack Deckert, general traffic manager, W.A. Taylor & Co., Miami, Fla.**

"Carriers are finally listening to the shipper. We want service and commitment!"—**Stephen Flewelling, traffic manager, WoolRest, N.A., Wilmington, Mass.**

"(Strategic alliance is just) a new name for 'carrier negotiations.'"—**Donald B. Timmerman, chief operating officer, Continental Traffic Service, Memphis, Tenn.**

"(The difference between strategic alliances and traditional shipper/carrier relationships) is only a matter of semantics. Fewer carriers increases your ability to negotiate larger discounts, control freight costs and maintain an acceptable level of service."—**Richard E. Formica, corporate traffic manager, Keuffel & Esser Co., Parsippany, N.J.**

"The written commitment seems more binding than a handshake, particularly if the vendor is new. Everyone knows up front what is expected of them."—**John P. Teschel, traffic manager, Norton Co., Akron, Ohio.**

"(The difference) is just terminology. 'Savvy' shippers have always forged ties with carriers for better service and, since deregulation, for lower cost. Strategic alliances = good business sense!"—**J.H. Jenkins, shipping manager, Excell Home Fashions, Goldsboro, N.C.**

"(Strategic alliances were) the difference between success and failure for Just-in-Time at Unisys Flemington. Strategic alliances established firm ground rules of expected service and price levels."—**Don Longchamps, traffic & logistics manager, Unisys Corp., Flemington, N.J.**

"The difference lies in two words—trust and communication. Trust in each other's ability to perform, and a willingness to communicate."—**Edward Loftus, manager of logistics, Ampex Corp., Opelika, Ala.**

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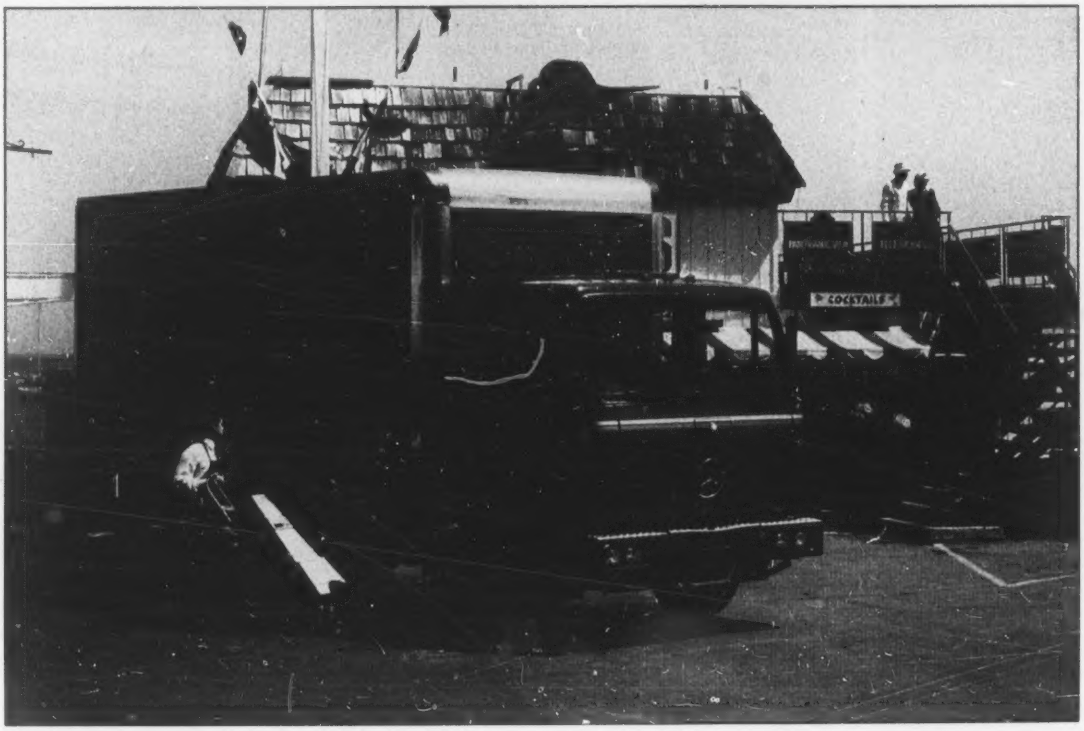
8

MAKE WAY FOR THE 'BABY EIGHTS'!



It's hard to get their number, but by any name, the new breed of "distribution trucks" has moved into a class all its own.

A *DISTRIBUTION* Staff Report

If you've ever tried to force your foot into a shoe that was simply too small, you have some idea of how hard it is to comfortably categorize the new type of truck that's helping fleet managers take big strides toward meeting the distribution objectives of the '80s.

The existing truck classification system of the Motor Vehicle Manufacturers Assn. (MVMA) is of little help. It's based strictly on gross vehicle weight (GVW), and GVW only tells part of the story anymore. You also can't get much assistance from traditional truck nomenclature like "single/tandem axle," "low/high profile," or "medium/heavy conventional."

No, to be truly descriptive these days, you really need to zero in on truck *function*. And the function that's now most in demand is multi-purpose, frequent-run, short-haul, inter- and intra-city duty. Many private and for-hire fleets alike are now abandoning big, long-haul rigs in favor of a new breed of smaller, lighter, diesel-powered, more flexible and maneuverable trucks which can meet the new service needs spawned by today's relay-race distribution channels. And the R&D sights of every major domestic truck manufacturer—along with some significant foreign entrants—are now fixed firmly on this trend.

And, while a good chunk of the truck sales that are fulfilling this demand falls into the MVMA's Class 7 slot—thus accounting for a significant shift in MVMA sales figures over the last five years (see table, opposite page)—you'll only start confusing yourself again if you try to find a clean classification, or name, for this type of vehicle. Depending on the weights and configurations that

Contributing Editors Robert Bowman and Kurt Hoffman, Managing Editor Jay Gordon, and Editor-in-Chief Joseph Barks contributed to this report.

meet individual fleet requirements, these trucks can fall into the low end of MVMA's Class 8, or the high end of Class 6, as easily as they can nestle into Class 7. That's why you'll hear them alternately called "Baby Eights," "7½s," or "Super Sixes."

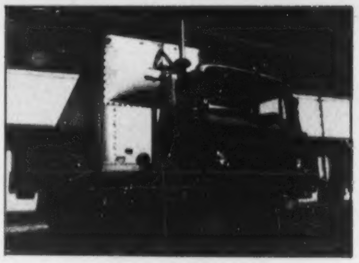
The closest anyone's come to a universally generic description is "distribution vehicle." But even that term should be used sparingly, because it too can understate, or completely misstate, the full utility of truck manufacturing's current—and only—star.

Reinventing the Wheels

The emergence of the new breed, in fact, has sparked interest in trying to make the MVMA classification system more compatible with the times. "Our current classification system is outmoded," says Peter Rupp, president and ceo of Freightliner Corp. "It does not reflect the shifts in the marketplace among truck configurations, nor does it properly reflect usage characteristics."

Ken Penaluna, vice president of purchasing and engineering with Ruan Transportation, goes so far as to claim that "nobody really uses Class 7 and Class 8 anymore. It's an outdated nomenclature, from the 1940s and '50s; it doesn't define the equipment."

Again, though, the problem is that no one really has a better idea as to how the MVMA system could be altered, or replaced.



Should sales reports stop concentrating on weight, and instead look at horsepower, or length, or the number of axles? And even if a new standard of measurement were to be devised, how accurately would *it* be able to pinpoint trends, given the built-in flexibility of just about every new truck that's [illegible] being introduced? For example, Larry Miller, president of Ruan's transportation management unit, notes that his company's new "Megamight" truck can now be either a Class 6 or 7, "depending on what kind of delivery service we put it in."

It's also easy to get sidetracked into discussing the external historical factors which have pushed truck manufacturing away from a weight-based emphasis. Some point to the obvious effect of the 1974-75 oil embargo, which spurred demand for fuel-efficient, medium-duty diesels. (Prior to the embargo, Class 6 and 7 trucks were virtually all gas-powered.) Others point to, of all things, the school busing push of the early '70s. That social program promoted development of bus chassis and engine technology (buses fall in the Class 6 weight range) which was then passed on to manufacturers of smaller trucks.

Then there's the impact of federal excise tax (FET) changes in the Surface Transportation Assistance Act (STAA) of 1982. That legislation provided an exemption for two-axle trucks with GVWs of under 33,000 lbs.

"If I've been a three-axle buyer, that's going to make me say, maybe I can get by with a two-axle truck, and not have to pay the FET," notes Terry Young, director of marketing for Volvo White. Indeed, many truck buyers began to specify two-axles with GVWs of 32,900 lbs., paid no FET, and then added the components necessary to handle total loads of as much as 70,000 lbs. Young notes that while Class 7 sales historically have been concentrated around 27,000-28,000 lbs., the average in recent years has moved up into the top end of the class (between 30,000 and 32,000 lbs.)

The STAA also made breakbulk operations a greater reality, Young adds, because of its sweeping allowance of doubles trailers on most of the nation's highways. "Now you want an over-the-road mule to pull the twins into the city," he says, "and a lighter-duty, two-axle tractor, in the neighborhood of 220-250 horsepower, to come in and deliver the freight."

continued

DOMESTIC TRUCK FACTORY SALES BY GROSS VEHICLE WEIGHT
(in thousands of units)

Class (by weight in lbs.)	1986*	1985	1984	1983	1982	1981
Class 6 (19,501-26,000)						
Total Sales	14.39	25.81	29.27	24.31	22.53	50.76
Diesel Sales	NA	14.25	13.79	9.70	8.56	19.34
% Diesel	NA	55.2%	47.1%	39.9%	38.0%	38.1%
Class 7 (26,001-33,000)						
Total Sales	65.79	81.12	74.44	48.89	48.57	41.50
Diesel Sales	NA	50.49	43.41	29.47	26.28	27.65
% Diesel	NA	62.2%	58.3%	60.3%	54.1%	66.6%
Class 8 (33,001 & Over)						
Total Sales	84.57	120.94	138.58	78.57	68.04	94.96
Diesel Sales	NA	120.31	137.69	78.01	67.45	93.77
% Diesel	NA	99.5%	99.4%	99.3%	99.1%	98.7%

**Figures for 1986 indicate sales through the first nine months of the calendar year.*

The gap is fast closing between the MVMA's top two classes, but the numbers don't tell the whole story.

The Fontana Phenomenon

As interesting and important as these factors might be, though, they still take a back seat to the biggest driving force: newfound efficiency and productivity *within* the transportation sector.

"Goods that need hauling are getting fewer, smaller and lighter," notes Freightliner's Peter Rupp. "And those goods are being hauled by trucks which travel shorter distances. The times when operators could put a 450-horsepower engine in their trucks just to be gutsy are over; they've had to recognize the economic forces which impact trucking today."

Dave Wood, marketing manager for Paccar's North American operation, says you only have to visit a place like Fontana, Calif. to understand what's going on.

A few years ago, Fontana—some 50 miles east of Los Angeles, on the edge of sprawling, populous Orange County—basically didn't exist. But now, Wood reports, it's been growing steadily as a haven for truck terminals and warehouses, "as far as the eye can see."

"It's where big rigs come in off the highway and dump their loads," he notes. "Freight consolidators break those loads and put them into straight trucks or 'Baby Eights,' and haul them into town. They're smaller, more maneuverable trucks, they get better mileage, and they're easier to handle in stop-and-go traffic, narrow alleys, or around loading docks."

These are the primary reasons, agrees John Merrifield, heavy truck sales manager for Ford Trucks, why "the market is getting compressed from both the bottom and the top. For years, we have acknowledged that most trucks don't go out fully loaded to the maximum weight," notes Merrifield, "and a lot of companies are deciding they can get by with less power and a smaller truck." But not *too* small; fleet managers still want to be confident they can use an intracity vehicle to haul a fully loaded trailer a couple hundred miles in a pinch.

Special Deliveries

How are the "Baby Eights" actually being worked into existing fleet operations? In addition to the profiles on page 16, here are capsule reports from some other fleet managers who are making room for the new breed:

Walgreen's—Walgreen Drug Stores has only seven straight trucks in its entire nationwide fleet, but they're used for a very specific purpose: braving the streets of Chicago.

Tom Stedman, director of corporate transportation, calls Chicago "the worst city in the country in which to deliver;" a proliferation of rail tracks and overpasses puts severe constraints on equipment.

For now, Walgreen's doesn't envision making a greater commitment to downsized trucks, because most of its stores are generally accessible to tractor-trailers. But that could change, Stedman reports, "if we ever got to the point of daily deliveries."

Primo's Pizza—The new "distribution trucks" will definitely be at the forefront of this company's ambitious expansion plans. Primo's 2 for 1 Pizza, Inc. currently has one central commissary serving 30 stores in the Atlanta area. This year, the company plans to go nationwide. Another commissary will be opened in Alabama to help serve 70 new stores currently on the drawing board.

Primo's Mel Tringali says the company has a small fleet of Iveco Z-450s—a delivery truck with a GVW of 50,000 lbs. Mel has the same "dilemma" a lot of fleet managers have these days—he doesn't know how to classify these trucks, but he swears by them.

"They've got the height, the width and the capacity to handle our business without bogging down," says Tringali. "They're perfect for in-town delivery."

Blackstone—A distributor of building materials based in East Brunswick, N.J., Blackstone owns 14 single-axle straight trucks made by Hino. Charlie Plungis, maintenance supervisor, says the company has acquired the Hinos two or three at a time to supplement its 65-truck fleet.

Blackstone deploys its Hinos within a 100-mile delivery radius, shipping directly to construction sites. "The cabover handles a lot better than conventional trucks," says Plungis. "Fuel economy is excellent, and dependability is good. We've had very few breakdowns."

With the diesel engine, Blackstone gets between 10 and 14 miles per gallon from its smaller vehicles. Driver comfort is also a major consideration. "After a full day of driving, he doesn't feel like he's been beaten up," reports Plungis. At the same time, Plungis is impressed by the punishment the smaller trucks can absorb. "They seem to stand up to what we can dish out."

Herr Welding Supply—This small company, based in Harrisburg, Pa., has a long history of operating Class 7 trucks. Company President Robert Herr says he's been running vehicles in the 26,000-GVW class for 17 or 18 years. Currently, Herr has six Class 7s, ranging from a 1974 Dodge to two newer Mack Midliners—cabovers with engines built in France by Renault.

The older equipment is ready for retirement, and Herr expects to replace it with more Macks. The company's trucks operate within a 100-mile radius of Harrisburg, carrying high-pressure cylinders, welding machines and industrial gases. The new trucks "seem to fit right in with what we're hauling," Herr reports. "They can take the rough handling that's needed in our industry, without weighing 20 tons."

Some Jobs Are Still Too Big

Be assured, though, that there are still plenty of fleets out there with needs that can't be fulfilled by the "Baby Eights" *et al.* In fact, certain fleet operators are higher than ever on the prospects for big rigs, in view of the increased payloads they can now get with 53-foot trailers and relaxed weight restrictions in many states. These fleet managers aren't rushing to scale down and sacrifice gross vehicle capacity, just to be able to squeeze down an alley or negotiate a busy city street.

One such fleet manager is William G. Bellerose, traffic manager

continued

of Hub Distributing Inc., the Southern California-based transportation arm of the Miller's Outpost chain of clothing stores. Where access to stores is difficult, he says, "we'd rather run a single 28-foot trailer. Straight trucks tend to limit cube availability." Bellerose also feels the new aerodynamically-designed big rigs are "pretty much equal" to the smaller trucks in fuel economy.

What it comes down to, of course, is individual distribution requirements. Brock Partin, vice president-distribution for Proficient Food Co., the Irvine, Calif. firm that services the Denny's restaurant chain and other customers, notes that downsized trucks don't always meet Proficient's needs because of weight considerations. But they're well-suited for the fast food business, he adds. Denny's doesn't use the large amounts of foam and paper fast food chains do, so their trucks weigh out before they cube out.

Some even foresee oversaturation in the "Baby Eight" or "7½" sector. Todd Bloom, vice president of marketing for Iveco, says flatly "there isn't a Class 7 maker in the country who's making money (on that line)." Iveco, despite its success with companies like Primo's Pizza, has targeted production in classes 3 through 6, where it believes the real growth lies; larger trucks are made to special order. "I'm just curious as to where the (downsized) volume is coming from," Bloom says.

Are truck manufacturers truly creating a new market through their latest R&D and marketing efforts? Or is the deck just being reshuffled? Regardless, the good news for shippers is that there's now a much more useful assortment of equipment from which to assemble a customized fleet.

"Inevitably, every dollar spent on a truck is going to get related back to the horsepower that's really needed—versus reserve power and some of the other concepts we've had in the past," says Paccar's Wood. "That means sales of high-end Class 8's will probably shrink a bit more, as people look at trailers that are half-filled. People seem cautious to spend any extra dollars, and this sets the stage for 'Baby Eights.' " ★

Single copies of this article are available at no charge. Input 427 on Reader Service Card.

FULFILLING THE NEED FOR FEED, SEED AND EVERY BREED

America loves and needs animals, large and small. So it's no surprise that the "distribution truck" is already hard at work keeping the country's estimated 174 million head of livestock and 232 million household pets healthy and happy.

The Feed & Seed Co. of Jacksonville, Fla. has been committed to downsized trucks for 10 years. Today, its 22 Mercedes-Benz Class 7s comprise the bulk of its fleet.

The service radius of Feed & Seed trucks is surprisingly wide, given the fleet makeup. The company delivers as far north as Virginia, as far south as Key West, and as far west as New Orleans. Yet the heavy-duty build of the Mercedes prevents engine burnout, a common problem with smaller trucks, according to company owner Wendell Davidson.

Feed & Seed recently purchased four more Mercedes Class 7s—two being the company's first cab-over-engine models. Now that the drivers have given rave reviews to the new design, Davidson wishes he'd bought all four as COEs. "I liked the conventionals so well, I was reluctant to change," he says. "I'll probably buy a couple more cabovers."

The Feed & Seed Class 7s get between 9 and 10.5 miles per gallon whether loaded or empty, Davidson reports. That's a big contributor to their overall cost advantage, he says, which comes from good mileage, low maintenance, and dependable operation. The trucks are ideal for multiple deliveries, he adds. Feed & Seed drivers make up to 35 stops a day, many at small pet shops.

Another company that's bullish on the new breed is Kenlin Pet Supply, a wholesaler based in Mahwah, N.J. General Warehouse Manager Joseph Kohn says Kenlin operates a fleet comprised entirely of 15 Volvos with GVWs of 33,000 lbs. The trucks each deliver to between 100 and 150 customers each day, racking up 100,000 miles a year across the Eastern Seaboard as far north as New Hampshire.

About five years ago, Kohn—a former driver for Kenlin—was the first at his company to test the Volvo. He hasn't stopped purring since. "It's a comfortable truck, fuel consumption is unbelievable, it handles up hills fully loaded, the maneuverability is superb—there's nothing bad I could say about this truck," he raves.

—Joe Barks/Bob Bowman

Kenlin is so sold on distribution trucks, its fleet is now pure-bred with nothing but Volvo "Baby Eights."

Feed & Seed's Mercedes are tough enough to overcome small truck owners' biggest pet peeve: engine burnout.

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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE FEBRUARY 1987

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RATE YOUR MOTOR CARRIERS

THE COMPUTER CHALLENGE: SORTING OUT THE SOFTWARE

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FEBRUARY 1987

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The Maritime Minefield

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OPINIONS? WE GOT A TRUCKLOAD!

The truckload segment of the motor carrier industry appears to be shifting into high gear. In December we asked you to list truckload's biggest advantages and its biggest drawbacks, and tell us why it has become so popular. Your responses revealed some distinct trends:

"The for-hire carriers are negotiating attractive rate and service packages where volume warrants. Unfortunately, during peak periods this results in an 'overbooked' situation where not enough equipment is available." **—James J. Paule, traffic manager, Spangler Candy Co., Bryan, Oh.**

"The greatest attraction of truckload is lower rates and faster service. There is no comparison of TL rates vs. LTL 'discounts.' The only disadvantage is when there isn't enough tonnage to a particular area to make a truckload shipment." **—R.G. McCormick, assistant director, distribution, Bunge Edible Oil Corp., Kankakee, Ill.**

"The greatest attraction today is the number of quality carriers with competitive rate scales. I have no deterrent, as service levels remain good with all carriers I utilize." **—Donald A. Nichols, distribution manager, Guardian Industries, Carleton, Mich.**

continued

Of the for-hire service my company pays for, the percentage (by weight) moving on a TL basis is	57%
LTL	43%
My company tends to use for-hire TL service most for:	
outbound shipments to customers	49%
inbound shipments from vendors	31%
intercompany moves	11%
When I ship a truckload, I want it to be in a:	
48′ trailer	42%
45′ trailer	36%
53′ trailer	11%
When I ship a truckload, the carrier is most often a:	
national, general commodity carrier	33%
specialized or regional carrier	28%
independent owner/operator	25%
Truckload shipping generally requires dropped trailers at my facilities	50%

QUESTION OF THE MONTH

TOO MANY HANDS IN THE SOUP?

Almost a year ago, we asked shippers about the problems they've experienced with intermodal transportation services ("Dialogue," April 1986, p. 7). A clear majority of respondents, 53 percent, said service problems were caused by confusion—*read* lack of communication—over carrier responsibility in the intermodal marketing equation.

One reason for this confusion is that there are more hands in the intermodal soup today than ever before. In the wild and wooly world of transportation mergers and acquisitions—where steamship lines own railroads, railroads own trucking companies, and so on—it is not uncommon for intermodal service offerings to come from every corner of the transportation marketplace.

Who is marketing intermodal service to you? The railroads? Steamship lines? Third party brokers and forwarders? What is the biggest source of confusion for intermodal shippers? What can be done to clear it up? Help us get to the bottom of this by filling in your answers on the card below.

DIALOGUE

February 1987

• Who markets intermodal services to you now? (check all that apply): ____railroads; ____steamship lines;
____third parties; ____other (describe) ____________

• What is your greatest source of confusion when using intermodal transportation services? (check ONE only):
____rating/routes; ____liability; ____billing;
____in-transit communication;
____Other (describe) ____________

• Are direct sales calls more or less necessary for intermodal movements today?
____more necessary; ____less necessary

• If you use intermodal services, is computerization of your operation more difficult because of those services?
____more difficult; ____less difficult
____there is no difference

• In the last two years, have you noticed a difference in the quality of intermodal service you receive?
____service has improved; ____service has declined
____there is no difference

How, and by whom, would you prefer to have intermodal services marketed to you?

____

____

____

____

NAME (print) ____________ TITLE ____________

COMPANY ____________ PHONE ____________

ADDRESS ____________

CITY ____________ STATE ____________ ZIP ____________

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"What we will have is a 'boutique within a shopping mall' type of arrangement, where the various facilities and services are available in one location, but they will be provided by many different operators."—**Robert G. Brazier, president, Airborne Express, on the distribution center of the future**.

•

"In the struggle for survival, the fittest have become the global operators, in addition to those who specialize in various fields. The future of shipping depends on an industry in sound financial order, so shippers should welcome cooperative developments—they benefit all parties."—**Erik Waage-Nielsen, president, Barber Blue Sea and ScanCarriers**.

•

"As businessmen, we have always been sensitized to 'give the customer what he wants.' We must return to these basic marketing methods and make U.S. business a competitor once again in world markets. Certainly metric changeover is part of this equation."—**Craig Thom, chairman of the board, American National Metric Council.**

"Truckload carriers offer excellent service, excellent rates. LTL specialized carriers do not cover enough territory and rates are not competitive enough. Also, they cannot handle appointment delivery freight."—**Rod Martin, corporate traffic & distribution manager, DEP Corp., Rancho Dominguez, Calif.**

"Truckload is the best value in cost and service between two points. The biggest deterrent is that most frozen food distributors are not able to order in truckload quantities."—**Rick Patterson, distribution director, Fred's/Centre Brands, Riverside, Calif.**

"The greatest attraction is the price and transit times. The greatest deterrent is the unreliability of pick-up and delivery."—**Tim Kubiak, transportation manager, Volvo White Trucks, Greensboro, N.C.**

"Service and price are the attractions of truckload for us. Getting the correct equipment and permits is the only drawback I can think of. LTL discounts can't match the cost and service of truckload."—**Charles W. Welcome, traffic manager, Erv Weidmann, St. Johnsbury, Vt.**

"The greatest attraction is lower costs. The greatest deterrent is that too many carriers do not exercise enough control over their drivers."—**W. McNeal, traffic manager, Mohasco Upholstered Furniture, New Albany, Miss.**

"The greatest attractions are the ease of doing business, competitive rates and superior overnight service. There are **no** deterrents in truckload service."—**Jim Ammons, director of traffic, Baddour, Inc., Memphis, Tenn.**

"The greatest attractions are price, service and control of delivery. The greatest deterrents are subcontracting, insurance coverage and errant drivers."—**Philip Lower, manager, transportation services, Hayes-Albion Corp., Jackson, Miss.**

"Cost, trailer size, and service are all advantages (of truckload carriage). The greatest drawback is in the need for verification of insurance coverage."—**Frank Carberry, distribution manager, Waterbury Co., Waterbury, Conn.**

"The advantages of truckload service include price and the availability of equipment. Also, truckload carriers provide excellent service. We really don't see any deterrent in using truckload carriers. In the six years we've been using them, we have never encountered any major problems."—**Paul J. Hill, traffic manager, Niagara Envelope Company, Buffalo, N.Y.**

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CHILTON'S
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MARCH 1987

RITIME
EFIELD

blow up over
ment inspections

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SUSAN GARNER
CONGRESSIONAL INF SERVIC DIR
4520 EAST WEST HIGHWAY
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PRIVATE FLEETS PUT EQUIPMENT TO THE TEST

A BREACH OF SECURITY

FREIGHT PAYMENT SYSTEMS THAT WORK

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In the cost-conscious world of private carriage, dependable equipment plays a big role.

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DIALOGUE

TIPTOEING THROUGH THE MINEFIELD

Rarely has an issue elicited the emotional response we received to our January Dialogue question. "What's your biggest headache regarding pre-shipment inspections?" we asked. Reading your answers was like listening to the soundtrack from a war movie: guns blazing everywhere. Here's a sampling, but check out this month's cover story, "The Maritime Minefield," (page 10) for a more in-depth look.

"The biggest headaches we have include arranging for the delivery of the container and the arrival of the inspector to coincide; allowing time for shipping personnel to open pallets and cartons for inspectors; and having our invoices to the export customer exposed in this way. IT IS A PAIN AND A NUISANCE!" —**J. Parker, transportation manager, Sanden International, Dallas, Tex.**

"Delays, delays, delays. Is this punishment for trying JIT?" —**D.J. Simons, traffic manager, IPT, Wallingford, Conn.**

continued

How many shipments per month are inspected by SGS?	
one to five	53%
six to ten	12%
over ten	35%
Why are shipments most frequently delayed?	
delays in handling paperwork	54%
difficulty in securing an inspector	31%
inspections not carried out within proper timeframe	15%
Shipments have been delayed past expiration of letter of credit	59%
On average, this happens once	25%
two to five times	33%
six to ten times	17%
over ten	17%
How much does it cost to present shipments for SGS inspection?	
under $10,000	73%
$10,000 to $20,000	20%
Pre-shipment inspections change terms of sale	44%
Pre-shipment inspections increase landed costs	71%

QUESTION OF THE MONTH

THE ABCs OF EDI

Computerizing your logistics operation isn't enough these days. Many companies, shippers and carriers alike, are asking—and sometimes *requiring*—that their customers hook up with their computers to allow paperless transactions and message sending.

It's called Electronic Data Interchange (EDI), and it's probably the hottest buzzword in transportation/logistics communications today. EDI allows computers to "talk" with each other; to transmit information between them without reentering the data. This speeds the transfer of all types of information, since it is in a common format and immediately useable by the computer.

Recently, at the Transportation Data Coordinating Committee (TDCC) meeting in Washington, DC, many of the speakers discussed EDI in glowing terms, painting a bright future for companies who exploit EDI to its fullest.

Yet there are others who wonder if time is fast slipping away for EDI. Some say it's put up or shut up time—time to see just what the true potential is for EDI.

We'd like to find out what our readers think about EDI. What is being done to implement it and to help it achieve its potential? Fill us in by filling out the card below.

DIALOGUE

March 1987

• Check the following if your department is using EDI for:
______bills of lading; ______freight bills;
______commercial invoices; ______pickup orders;______delivery notices; ______shipment status;
______vehicle location; ______freight rate checking;
______mileage determination; ______electronic funds transfer;
______inventory status messages; ______letters of credit;
______Customs clearance; ______purchase orders;

• What percentage of your bills of lading is now processed through EDI? ______

• What is your cost of processing a bill of lading:
______with EDI? ______without EDI?

• What percentage of your freight bills is now processed through EDI? ______

• What is your cost of processing a freight bill:
______with EDI? ______without EDI?

• For my transportation/logistics operation, the impetus to implement EDI has come primarily from (check one only):
______vendors; ______carriers; ______customers; ______other departments within my firm; ______my own department;
______industry organizations; __other (describe) ______

The greatest benefit from implementing EDI in transportation/logistics is:

______

______

______

The greatest drawback to implementing EDI in transportation/logistics is:

______

______

______

______

NAME (print) TITLE

COMPANY PHONE

ADDRESS

CITY STATE ZIP

DIALOGUE continued

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"Improvements in the liner shipping industry will improve efficiency and lower costs. Expanding use of service contracts and consolidation in the industry will allow shippers to forge closer, longer-term relationships with just a few carriers—or possibly one."—**Michael Sclar, vp, maritime group, Temple, Barker & Sloane, Lexington, Mass.**

•

"JIT is a cutting-edge notion for regulated carriers, but exempt carriers have been doing it for years. You can't inventory tomatoes. From the moment they leave the fields, they race to the table. The need for superior systems and information, and the coming equipment shortage, will make it more difficult for the less-sophisticated truck brokers to stay in business."—**Herbert Kotzen, vp, transportation, C.H. Robinson Co.**

•

"Many U.S. companies have trouble competing today even with several thousand miles of water insulating them. How will they compete when the best in the world is only 50 miles down the road?"—**Hal Mather, president, Hal Mather, Inc., Atlanta, Ga.**

MARITIME MINEFIELD continued from p. 7

"Pompous inspectors play God. They don't know the products but they claim the prices are out of line. They have no idea of the transit time and other problems caused by documentation delays or letter of credit problems due to SGS delays. SGS should not be allowed to set pricing in a free enterprise society."—**John J. Cuadrado, president, Belco Resources, Inc., Eastchester, N.Y.**

"The biggest headache we have is the judge-and-jury, rigid attitude of inspectors."—**H. Bronsky, Inland Industries, New York.**

"Paperwork—to ensure prompt inspection and fair trade price approval; additional labor cost to supervise and assist inspector—adds 2-3 percent to selling price. Pre-shipment inspection is a pain, but a necessary part of the export game."—**Angeleo Nunez, president, Shore Power, Brooklyn, N.Y.**

"Delays in CRF issuance create Customs clearance problems at the importing country and remittance problems for us, due to delays on foreign exchange release for late issuance of CRF."—**P.K. Chin, export & import controller, Eveready Battery Co., Purchase, N.Y.**

"Our biggest problems are the loading delays and extra coordination required for loading and scheduling."—**Frazier Huddleston, distribution manager, Cincinnati Milacron, Cincinnati.**

"Pre-shipment inspections are labor-intensive for the sales, traffic, warehousing and shipping departments. More work=higher labor costs. We would rather spend 'time' doing business and not clerical duties."—**Vivianne Silverman, corporate traffic manager, Fritzsche Dodge & Olcott, a unit of BASF, New York.**

"Our biggest headache is costly delays—not only the letter of credit expiration, but the fact that our product is a life support system (dialysis) and delays can be life-threatening."—**Jon Sorenson, shipping supervisor, CD Medical, Portland, Ore.**

"The biggest problem is getting the final findings after the inspection. This sometimes takes up to three weeks—a real headache."—**Jack D. Martle, traffic manager, L&S Bearing Co., Oklahoma City, Okla.**

"Getting the paperwork in time to ship as required or dictated by import license or letter of credit is our biggest headache."—**G. Hansen, manager of transportation, Allis Chalmers, Milwaukee, Wis.**

"The biggest headaches for me are the paperwork and the lost income."—**Bob Obohorn, president, OBO Transport, Madras, Ore.**

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Spanning America For Small Shipment Success Stories

Leasing Services Directory

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NEXT MONTH

Anatomy of an air freight analysis

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THE INTERMODAL MUDDLE

As the response to our February Dialogue question shows, about the only thing shippers agree on regarding intermodal marketing is that there are many viable alternatives. Some of you told us that it was best to deal directly with the railroads, while others laud the advantages of third parties because of their convenience, flexibility and pricing. Still others wish for someone able to capture the advantages of both. The bottom line here seems to be that shippers want to deal with someone who knows the service and has the authority to make rates.

"Intermodal services should be marketed directly by the railroads. Third parties create confusion. Truckload motor carriers are very simple to deal with. That is way their market share has increased."—**Jim Ammons, director, traffic, Baddous, Inc., Memphis, Tenn.**

"Without great volume, third parties can get you a good price. They offer one billing for door-to-door service as well as complete responsibility—if you insist."**-H. Nicholls, distribution service manager, R. R. Donnelley & Sons, Warsaw, Ind.**

continued

Who markets intermodal services to you now?	
third-parties	75%
railroads	58%
steamship lines	35%
What is your greatest source of confusion when using intermodal services?	
routes/rates	37%
liability	31%
in-transit communication	22%
For intermodal movements today, direct sales calls are more necessary	53%
Intermodal service makes computerization of distribution:	
more difficult	21%
less difficult	8%
no different	71%
In the last two years, the quality of intermodal service has:	
improved	63%
declined	10%
not changed	22%

QUESTION OF THE MONTH

AUDITING THE RATE AUDITOR

Prior to 1980, determining correct rail or motor freight rates was both a complex and expensive task. A lot of corporate overhead was required just to subscribe to traffic-monitoring devices, keep them updated, retrieve rates, and analyze the company's rate uses and patterns.

At that time, things were pretty much manually based, and rate auditing firms often were invaluable in recapturing lost freight expenses.

But today, simpler contracts, tailored LTL service, disk-based rates and sophisticated computer-based rate service firms have changed the role of the traditional rate auditing firm. Yet many exist and thrive.

What has been your experience with rate auditors? Do these services give your firm the "bang for the buck" they once did? What advice do you have for anyone considering using a rate auditor today? What advantages, if any, do audit houses still hold over computerized, in-house systems?

Do you rely on them mainly for pre-audits, or are they primarily enlisted to do post-audits? Or both? Please let us know by filling out and returning the card at the bottom of this page.

DIALOGUE

April 1987

- How many freight bills **per month** are audited:
______in-house by hand; ______in-house by computer;
______by auditing firm; ______by outside computer base

- What is your approximate annual freight expenditure?
______$0 to $100,000; ______$100,000 to $500,000;
______$500,000 to $1 million; ______$1 million to $5 million;
______$5 million to $50 million; ______over $50 million

- What percentage of all bills are audited?_____ percent.

- What percentage of all bills are pre-audited? _____ percent.

- Which freight bills represent the largest number of errors (rank the top three)?
______LTL; ______TL; ______Rail; ______Air; ______Ocean;
______Third-party; ______Other (specify) ____________

- Rate the service of your auditing firm on a scale of 1 to 5 (with 1 representing the best service).
______volume of bills audited; ______amount of overcharges reccvered; ______speed of processing; ______cost of services

The advice I have for other shippers and receivers when selecting or using an outside auditing firm is:

____

NAME (print) TITLE

COMPANY PHONE

ADDRESS

CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors.)

"Unfortunately, instead of looking forward and stretching its minds, this highly distinguished panel framed its discussions in the arguments of yesterday. . . . The majority opinion though recently written, easily could have been penned long before this committee was assembled. . . . This report recommends the perpetuation of activities that had their genesis with the hard rubber tire—tariffs, rate cartels, antitrust immunity. . . . Instead of grabbing the initiative and leading reform or even gracefully acknowledging the realities of transportation in 1987, the Task Force and its report will be perceived as a stonewalling effort and will have a long-lasting adverse affect on the trucking industry. . . .

The Blue Ribbon Force missed a singular opportunity to redirect ATA policies to better arm the motor carrier industry with the tools it needs to be an effective competitor in today's global economy."—**E. M. Cody, distribution manager, GoodMark Foods and president of the Private Carrier Conference, from the dissenting opinion of the ATA Blue Ribbon Task Force on Economic Regulation.**

INTERMODAL MUDDLE continued from p. 7

"I prefer to deal with the rail company; however, the service level at delivery rail heads is still very poor, as is the internal communication with the carrier during the actual move. I get a lot of promises but no action."—**Rod Martin, corporate traffic & distribution manager, DEP Corp., Rancho Dominquez, Calif.**

"I prefer to buy intermodal services from the person who knows what he is talking about. Too often the salesperson really doesn't know the full story."—**Noel Strock, traffic manager, A. J. Hollander & Co., New York.**

"I like to deal with shippers' agents that can provide through-billing, origin to destination."—**R. Engebretsen, division traffic manager, Sta-Brite Industries, Inc., Delavan, Wis.**

"We have found that by using a consolidator or forwarder we can benefit from an all-inclusive service. If drayage or special handling is required, we don't need to shop around for the additional support. This is particularly important when minimal times in transit are scheduled."—**Mike Piercefield, distribution regional traffic manager, AAFES, Forest Park, Ga.**

"Third-party agents are better positioned to market intermodal services. They have a multitude of options at their disposal to present to shippers, and the clout of consolidated voulme to make it work."—**Donald A. Nichols, distribution manager, Guardian Industries, Carleton, Mich.**

"Intermodal services should be offered to shippers by the carrier offering the service. The carrier should have rates in effect with the railroads."—**James D. Black, terminal manager, Lawrence Freight Line, Inc., Lawrence, Kan.**

"I would prefer to have intermodal services marketed directly by the railroads, but at the normally lower third-party prices."—**T. R. Erickson, manager, transportation, Navistar International, Schaumburg, Ill.**

"I would rather deal either directly with a railroad rep *or* a third-party broker *with* a railroad representative."—**Rich DeSantis, traffic manager, Lumex, Inc., Bay Shore, N.Y.**

"I would prefer to deal with an independent broker who deals with many third parties, so as to utilize their various discounts and agreements."—**Darwin George, sales manager, Eagle Systems, Inc., Billings, Mont.**

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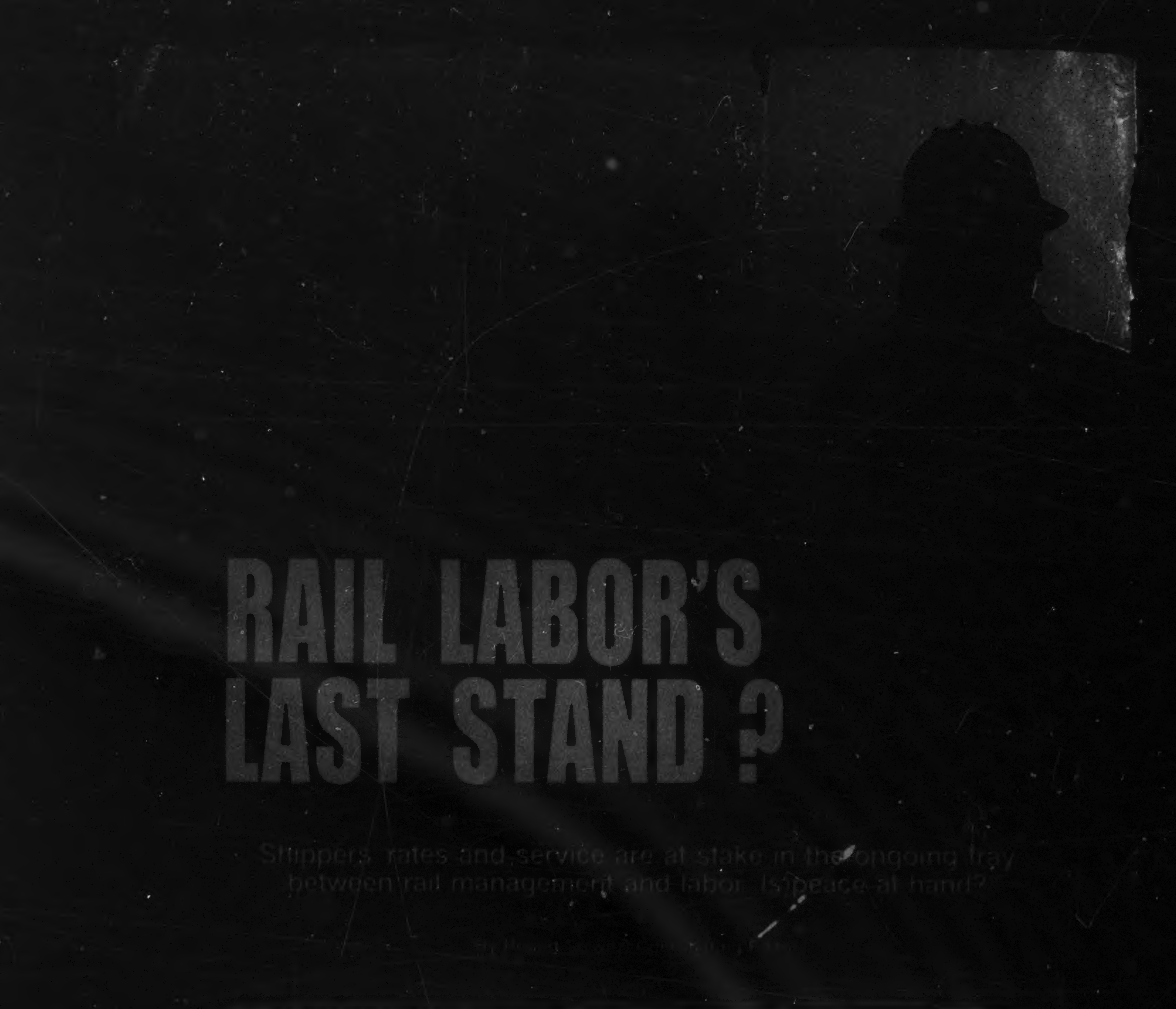

RAIL LABOR'S LAST STAND ?

Shippers, rates and service are at stake in the ongoing fray between rail management and labor. Is peace at hand?

By [illegible]

Colin Pease still shakes his head when he thinks about the labor strike that crippled his railroad.

"What other industry would tie up Congress over the rights of 66 workers on something as small as the Maine Central?" he says. "Of course, in what other industry could such a small group stage a strike that temporarily shuts down something as large as Conrail and the Union Pacific?"

Today, almost a year after the Reagan Administration forced an end to the strike against Guilford Transportation Industries, Pease—Guilford's vice president, government affairs—still is confounded by the situation the railroad found itself in. He recounts the scenario:

Guilford—which includes the old Boston & Maine, Maine Central and Delaware & Hudson trackage—faced what they saw as an untenable situation last year.

"Union Maintenance of Way employees sought lifetime contracts," Pease recalls. "When that was rejected they sought severance pay—up to $26,000 per man—for any future layoffs, plus a similar amount for anyone who had been laid off during the previous couple of years.

"Since we aren't the Union Pacific, nor flowing with money, we rejected the retroactive

portion of their demands and they struck."

The strike—which resulted in the secondary picketing case that is now before the Supreme Court—caused the railroad to withdraw earlier offers and hire 1,200 new people to run the line.

"It took two months to get it running—and ultimately caused the loss of close to $100 million in annual revenues," says Pease, "but it allowed us to structure the railroad in a way that seems to make competitive sense."

A Big Impact

Though its ranks have shrunk by more than a third since 1980, American rail labor remains the industry's great floating variable. Employment has fallen from approximately 532,000 to 345,000, according to figures from the Association of American Railroads. Despite this, rail labor still accounts for roughly one-half of a line's operating expenses. And that means that, directly or indirectly, the cost of labor impacts upon every shipper's rail rates

continued

and service levels.

The largest, Class One railroads, those with $84 million or more in annual revenues, divest themselves of unprofitable stretches of track—determinations made with labor costs and manning requirements in the forefront. New innovations and streamlined services hit the rails—but only after specific agreements, usually including relaxations of standard crew sizes, wage structures or work rules—are ironed out. New lines—dubbed short lines, feeder railroads or regional railroads—sprout from the unwanted Class One trackage. But these newcomers are born only through labor arrangements differing radically from those in effect on the Class One lines.

Therefore, the one question underlying most railroad discussions is, what will labor do to stem its rate of attrition? Will it continue to show levels of flexibility that have enabled a number of new services to capture traffic back from the highways? Can labor be convinced that by working to increase profitability, jobs might actually be added? And, how do these decisions affect shippers, the ultimate transportation mode decision makers?

Among the larger lines, one of the most cogent answers to these questions came from John P. Frestel, Jr., vice president-personnel and labor relations for the Atchison, Topeka and Santa Fe Railway Co.

Santa Fe is one of many railroads performing a high-wire act these days. They are required to continually search out cost savings—including work force cuts—while boosting revenues with the remaining staff.

"We have too many people in the operating crafts, and too many people in clerical positions," says Frestel. "You don't need five people to operate a modern train. And you don't need the large volume of clerical people, many of whose former tasks are now handled by computer systems."

Santa Fe's employment roster, which peaked in 1981 at 34,800, fell to 21,100 by January 1987. Those figures include a reduction in clerical staff of 5,000 during the same time frame. "And though we're not happy about it," Frestel adds, "we're not through yet."

Some Strategic Successes

The relationship between rail labor and management has not been without bright spots, though. One of the things Frestel is happy about, for example, is the addition of 117 railroad jobs on the Santa Fe's new Quality Service Network (QSN), which debuted last October.

The trains use three-man crews on runs linking 15 city pairs six days a week. "This service is cost-effective because we didn't have to man it under existing labor agreements," Frestel emphasizes. "Under those rules we would have had to add an extra 55 jobs—and that would not have allowed us to create the new service."

The service also features larger crew districts, allowing the trains to run longer before stopping for crew changes. This makes for faster transit times. Which makes shippers happy.

Typical of its success is the 35-hour, 40-minute Denver-to-Houston schedule that competes directly with over-the-road service. Here, labor agreed to regard that passage as operating over five instead of 10 crew districts. Under agreements negotiated with the Brotherhood of Locomotive Engineers and the United Transportation Union, the new trains also operate over longer crew districts, averaging 286 miles, with the longest being 335 miles.

"Without these agreements," Frestel adds, "the trains would not be cost or service-competitive with trucks."

Union Pacific has experienced similar success with its new intermodal "Sea-Port Fast Track" service connecting Seattle and Portland. Minus cabooses and fire-

COMPENSATION TO REVENUES AND HOURS PAID TO HOURS WORKED

Railroad	Compensation as % of Revenues	Hours Paid for/ Hours Worked
Baltimore & Ohio	39.5	1.15
Chesapeake & Ohio	41.1	1.15
Seaboard System	32.2	1.28
Norfolk & Western	32.6	1.21
Southern Railway	30.8	1.21
Conrail	32.1	1.25
Burlington Northern	28.1	1.29
Missouri Pacific	31.4	1.33
Union Pacific	37.8	1.36
Santa Fe	36.5	1.35
St. Louis Southwestern	27.0	1.39
Southern Pacific	35.5	1.37
Florida East Coast	21.1	1.05
Class I	33.4	1.28

Source: Association of American Railroads/E.F. Hutton (1985 figures)

Major railroads still suffer from unrealistic work rules that require payment for more hours of work than are actually performed. Only the non-union Florida East Coast gets close to an hour's work for an hour's pay, but it took a bitter strike for the FEC to achieve these gains. It is unlikely that other major railroads will enjoy similar improvements in work rules any time soon, even if one or more was willing to take a strike. Binding arbitration and Congressional pressure would likely end such a strike before any work rule changes were forced on the unions.

men, the service is targeted to recapturing truck traffic on the 183-mile run.

"Overall, labor gained two workers who otherwise would have been furloughed," says Tom Watts, vice president, labor relations and personnel. "They decided it was better to have two actual people on the job, than four theoretical people looking at the wall."

'Fiscal Frankness' With Labor

The daily trains are running, in part, because of what Watts describes as complete fiscal frankness with labor – including opening the corporate books to spell out the financial realities.

"Before we initiated this service, we carried virtually nothing between Seattle and Portland except for freight heading somewhere else," says Watts. "With underutilized tracks and cars, we needed labor's cooperation to make a win/win situation."

At Burlington Northern, Vice President, Labor Relations James Dagnon says that his line's two-man crew, 30-car intermodal Expediter trains are the "biggest success we've had" in recent years. The Expediter, too, was the result of specific labor negotiations. But, Dagnon says, it also reflects a genuine effort on BN's part to get the corporate point of view out to its 35,000 employees.

"We created a lengthy video tape featuring a hypothetical company that clearly is meant to represent Burlington Northern," Dagnon says. "In it we show how we need to increase volume, cut costs or both, in order to get to the point where investors seeking a reasonable 10 to 12 percent return on investment could find such an opportunity in a railroad.

"The tape points to the conclusion that since there isn't much chance for a boost in volume or prices, there simply has to be greater return on investment from our labor force," he adds.

Dagnon says labor is the key, because after computerized rail yards, fuel efficient locomotives, and lighter, more aerodynamic freight cars are all in place, the only available arena for cost savings is labor.

The effort seems to be paying off. "Burlington Northern's Expe-

continued

RAILROAD EMPLOYMENT BY JOB CATEGORY

	1985	1975	% Change
Executive, Officials & Staff Assistants	13,326	16,704	−20.2
Professional & Administrative	52,034	102,646	−49.3
Maintenance of Way & Structures	51,473	81,507	−36.8
Maintenance of Equipment & Stores	52,740	104,578	−49.6
Transportation (excluding train & engine)	18,671	27,062	−31.1
Transportation – train & engine	87,405	155,263	−43.7
Total	275,649	487,789	−43.4

Source: Association of American Railroads/E.F. Hutton

Railroads have made concerted efforts to reduce employees in recen years. Total rail employment tumbled 43.4% from 1975 to 1985. The larges drops were among maintenance workers (-49.6%), professional and administrative workers (-49.3%) and train and engine employees (-43.7%).

diters are absolutely dynamite," says Mark Smith, who heads Hub City Kansas City Terminals, Inc.

"I'm a large truckload broker, as well as an intermodal shipper, looking for the best deal for my customers," he says. "A shipper tells me what he wants to spend and the service he requires, and I buy that service for him. Due to innovations like the Expediter, railroad traffic becomes a more viable choice every day."

More Than a Few Rough Spots

With all these success stories, it might appear that peace and quiet had suddenly settled upon the American railroad scene. This is certainly not the case.

Management still chafes under stipulations of the Railway Labor Act that puts rail regulation in a whole different ball park—some even say a different planet—than other U.S. industries.

For example, secondary picketing—illegal under the National Labor Relations Act—is still being tested in the courts to determine whether it's legal under separate railroad regulations. This practice, where a union pickets a line connecting with one being struck, could paralyze the nation.

And then there is the question of the separate railroad employers liability act which, according to one Chicago-based executive, "might well have been pertinent back in 1912 when it was instituted, but certainly is not so today."

He explains that the separate regulations originated in response to grim conditions on early 20th century railroads. In 1907, for example, nearly 12,000 employees lost their lives on the job.

Today, under these rules, railroad workers retain the right to sue their employers with no limit on possible awards—unlike the no-fault arrangement in effect on everyone else's workmen's compensation policy.

According to the executive, this results in payments of $75 million to $100 million more for the railroad industry operating under the Railway Act than it would under standard workmen's compensation. "While railroad's 46 fatalities in 1985 were 46 too many, we're certainly not as dangerous an industry today, as, say, coal mining," he says. "Yet mine owners don't operate under a separate Coal Industry Labor Act."

EMPLOYMENT AND COMPENSATION

Year	Employees (thousands)	Compensation ($ million)
1944	1,413	3,853
1955	1,058	4,994
1966	630	4,879
1971	544	6,000
1975	488	7,475
1981	437	11,561
1982	379	11,021
1983	322	10,345
1984	323	11,004
1985	302	10,563

Source: Association of American Railroads/E.F. Hutton

Total railroad employment rolls have dropped significantly since World War II, but prior to 1982 the benefits from employee reduction largely went to remaining employees. Since 1981, gross compensation has dropped or remained relatively constant—allowing more funds to be spent on capital expenditures and mechanization.

Other trouble spots include the superior benefits offered rail workers—who get up to 52 weeks of unemployment insurance benefits *plus* the right to benefits while on strike, under provisions of the separate Railroad Unemployment Insurance System.

"What was valid during the early days of the century, when rail was king, is hardly valid today," another source notes. "We need to defederalize our employee relations in order to get onto the same level playing field on which other American corporations compete."

Starting Fresh

The regional railroads mentioned earlier have prospered under these conditions. Frank Wilner, assistant vice president for the Association of American Railroads, notes that these routes—whether union or non-union—do well because they are not tied to such age-old bedrock as payment based on mileage.

"In our last contract, the basis for operating crew payment was raised by 8 percent," explains Wilner. "That means they get paid a day's wage for every 108, instead of 100 miles, they work. But that still means someone can easily get paid three days wages for one day's work. That's typical of the things new feeder lines specifically avoid."

Because they are whole new entities, the regional or feeder lines are basically free to set their own work rules. And there are a number of success stories among these lines, too, to show that starting fresh pays benefits not only to management, but to labor as well.

Consider the Chicago, Central & Pacific which, on January 23, announced that workers would receive *bonuses* of between $200 and $500, based on a good showing in the line's first fiscal year.

John Haley, chief executive officer of the 772-mile line—formerly part of the Illinois Central Gulf—says the key was "productive labor and aggressive marketing. You can't succeed without both."

Daily wage rates, two-man crews, and a cooperative attitude are prime factors in what Haley cites as a truly unique phenomenon: "We've been in business for just 15 months and we're the only U.S. railroad to recently hire trainmen. With smaller crews we ended up with fewer people per train—but many more trains." As a result, employment is up sharply at CC&P, and while its $60 million in revenue is a drop in the bucket compared to many Class One railroads, Haley's group made money and added people last year. Most of the Class One lines did not.

"We've seen a lot of shippers coming back to the line, shippers moving everything from intermodal goods to grain, lumber, frozen meat and ties," adds Haley. "One sign of our success is that we've had to add five intermodal ramps to the four that were there when we opened."

Another ICG offshoot is MidSouth Rail Corporation, which operates a 308-mile route from Meridian, Miss. to Shreveport, La., plus a 70-mile link from Hattiesburg to Gulfport, Miss.

There, says ceo Edward Moyers, "the first thing we did was to reach agreement with labor that allows us to produce a level of productivity that keeps us competitive in the marketplace." As a result, two and three-man crews, and maximum flexibility in shops, are *de regieuer* at MidSouth.

"In our locomotive repair facility we can use people that belong to different craft organizations to do a wide variety of work," says Moyers. "A mechanic can do electrical work, a carman can do a machinist's job—they can step across formerly strict job description boundaries." That has not only kept labor costs down but, Moyers adds, "we've had an extremely low bad order ratio," referring to the number of locomotives in the shop for repairs vs. the number on the job. "We never just wanted to slash costs. We truly want everyone to enjoy a good standard of living. But that's only possible if the line is successful."

So far, that seems to be the case. Rates on the year-old line have attracted cargo back from trucks, and Moyers claims he even heard bargemen at Vicksburg, Miss. complain that MidSouth had taken all *their* business as well.

> *"They're all concentrating on selling mufflers and candy bars, or operating mines, barges, ship lines, and even airlines. If they could get back to basics, emulate the small lines, and serve all the customers, railroads could easily pick up 15 to 20 percent more business. And that would almost be enough to bring back all the furloughed employees."*
>
> *G. Thomas DuBose,*
> *Vice President,*
> *United Transportation Union*

Labor Leaders' Worries

With major contracts running through the current calendar year, relative labor peace is to be anticipated. Indeed, what seems to worry G. Thomas DuBose, vice president of the United Transportation Union, and R.P. McLaughlin, vice president of the Brotherhood of Locomotive Engineers, is the size of the employment base supporting railroad retirement and other contributory programs. DuBose' union represents conductors, brakemen, yardmen, firemen and engineers. He says he never anticipated membership dropping below 350,000. "But now," he says, "we're below 300,000, and with all the mergers and technology, that total could easily get to 200,000."

What does labor see as the root of the dilemma facing the railroads? DuBose says one problem is that big railroads aren't that interested in railroading anymore.

"They're all concentrating on selling mufflers and candy bars, or operating mines, barges, ship lines, and even airlines," he says. "If they could get back to basics, emulate the small lines, and serve all the customers, railroads could easily pick up 15 to 20 percent more business. And that would almost be enough to bring back all the furloughed employees."

McLaughlin has seen BLE membership drop from 38,000 to 30,000 in the past six years, yet he feels membership levels—and the railroads' loss of freight to other modes—is stabilizing.

He's dubious, though, about productivity claims, particularly increases in piggyback traffic. Much of these gains, he says, is not so much new traffic as freight that used to move in boxcars, then moved to the highways, and now is riding piggyback. He also resents engineers being grouped with other rail workers when counting crew sizes. "Asking engineers to increase productivity usually means asking them to haul trains that are twice as long with no more than a dollar a day in extra compensation," he says.

Correctly gauging and halting slack between cars is much more difficult on longer trains, says McLaughlin, and compensation should reflect that extra effort.

Reason For Optimism

How does all this impact on the shippers?

Terry L. Priest, manager of transportation and physical distribution at Adolph Coors Co. Brewing Division in Golden, Colo., says "the cabooseless trains we see are a good example of the way that lines like the Santa Fe are getting their rates competitive with other modes."

Russ Shores, corporate traffic manager of Brown Printing Co., has seen service improve on inbound paper shipments to its home base in Waseca, Minn. Brown receives about a hundred railcar shipments a month, and since the Chicago & North Western sold part of its route to the new Dakota, Minnesota, & Eastern, "we are now able to get the switches or deliveries we need." Before, he recalls, "some days we couldn't get any deliveries, and that often caused a real bunching of cars and a stiff demurrage bill from the railroad.

"Now, though, the DM&E is giving us two switches a day, and that's really helped us solve that problem." The DM&E, he adds, offers this service with cabooseless, two-man trains—compared with the former line's four-man crews.

At the U.S. Foods Division of Pillsbury, Joe Fall, Northern Iowa area manager for grain merchandising says: "More and more, we're relying on rail to bring our goods to river barges." Fall's group is the "commodity knowledgeable" branch of the huge corporation, responsible for pricing transportation for corn, wheat, soybeans and other bulk products. Since freight rates are a critical part of any sale, Fall has good reason to be encouraged by the performance of the feeder lines.

"We've seen one of those ICG spinoff lines come in, reduce crew sizes from five to three, eliminate feather-bedding, pay the crew well, and even give them bonuses for good service. And with all this the line's rates have dropped. That's made us really pay attention to what they're offering."

Where all of this leads is open to question. One thing, though, is certain. Whatever lies ahead for the nation's railroads will, to a great extent, be determined by two critical elements: The needs and fears of America's railroad workers, and management's ability to blend labor's goals with its quest for profitability. ★

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DATABASE

KNOW YOUR DISTRIBUTION COSTS

The internationally known consulting firm of Herbert W. Davis and Company teams up with DISTRIBUTION to bring you DATABASE, an ongoing, comprehensive report of key distribution costs.

How much does distribution cost your company as a percentage of sales? How does this compare with other companies? Or, looking at distribution positively, how much does distribution contribute to the firm's bottom line?

In these days of managing by the numbers, transportation and distribution managers have to have the answers to these questions. While many distribution departments have developed systems for tracking their own costs, gathering average distribution cost figures or comparative cost figures for their specific industry is difficult if not impossible.

Help has arrived.

DISTRIBUTION Magazine and the consulting firm of Herbert W. Davis and Company have teamed up to provide our readers with on-going, comprehensive distribution cost information. In the months to come, DISTRIBUTION will report on actual average costs experienced by at least 300 major U.S. companies, including specific costs for transportation, warehousing, order entry, customer service, inventory control, administration, and other elements of total distribution cost.

Herbert W. Davis and Company has been gathering this distribution cost information for 12 years and has developed the most comprehensive database of its type in the world. DISTRIBUTION will be bringing this information to its readers on an ongoing basis as the DATABASE

The figures in this installment of the DATABASE represent costs gathered in 1986. Future installments in DISTRIBUTION will include 1987 costs. Indeed, DISTRIBUTION readers have the opportunity to participate in this information and receive detailed, personalized and confidential comparative cost information (See the box on p. 39).

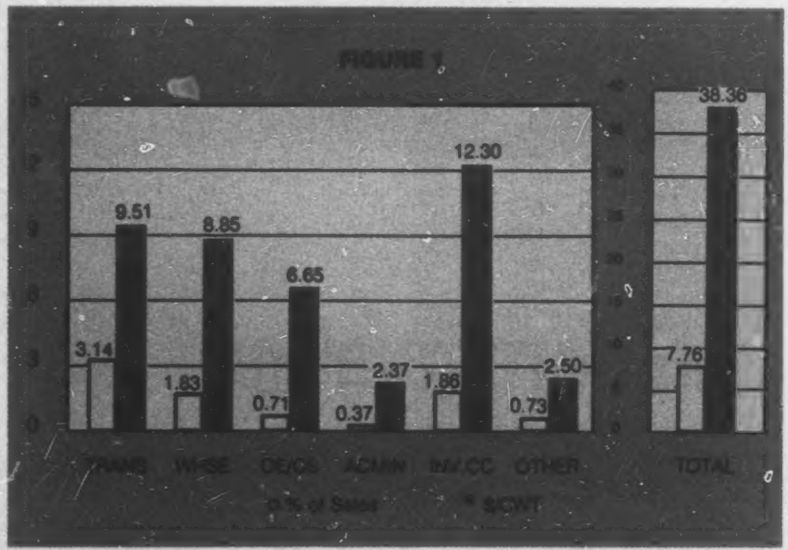
FIGURE 1

The DATABASE measures distribution costs in two ways: as a percentage of sales revenue and as a cost per hundredweight. The average corporation in the 1986 DATABASE posted sales of $588 million. The average volume shipped was 800 million lbs., and the the average sales-value-per-pound was $6.64.

Looking at overall figures, the average total distribution cost was 7.76 percent of sales revenue. This means that a company with $500 million in sales recorded distribution costs of almost $40 million and a per hundredweight cost of $38.36 (See Figures 1 and 2)

Transportation continues to be the largest distribution cost component, representing about 37 percent of total distribution costs and 3.14 percent of sales revenue. Inventory carrying costs and warehousing ranked second and third respectively in expenses as a percentage of sales--at 1.86 and 1.83 percent. The inventory figure was calculated on an 18 percent cost-to-carry basis.

While transportation costs are on the downswing, inventory and warehousing expenses are moving upward. Several years ago, inventory and warehousing costs represented only 20 percent each of total distribution expenses. Today, they figure as high as 25 percent.

Cost figures vary somewhat for specific industries. High-value pharmaceuticals, for instance, show the lowest percent-of sales cost – 3.44 percent. On the other hand, industrial non-durable goods are near the top of the percent-of-sales cost table at 9.19 percent (See Figure 2).

Looking at distribution cost trends since 1980, we see they declined during each of the past five years. The largest decreases occurred during the last three years with drops of 7.8 percent in 1986, 3.7 percent in 1985 and 6.4 percent in 1984 (See Figure 3).

continued

FIGURE 2

	% of Sales	$/CWT
All Companies	7.76	38.36
Industrial Non-Durable	9.19	38.74
Chemicals	7.73	4.52
Hospital	8.16	83.01
Industrial Durable	7.08	43.93
Industrial Durable<$5/lb.	6.71	14.93
Industrial Durable>$5/lb.	7.49	76.15
Consumer Non-Durable	6.86	35.43
Food Products		
Dry and Packaged Food	7.26	5.88
Canned and Processed Food	7.61	4.29
Temperature Controlled Food	8.41	7.39
Non-Food in Grocery Channel	7.60	44.83
Pharmaceuticals<$10/lb.	4.95	29.83
Pharmaceuticals>$10/lb.	3.44	130.51
Consumer Durable	9.35	45.21
Retail Stores	8.26	27.09

FIGURE 3
DISTRIBUTION COST IN

	% of Sales	$/CWT
1986	−7.8%	−4.6%
1985	−3.7	+3.3
1984	−6.4	−8.3
1983	−1.4	+6.1
1982	−0.8	+7.6
1981	−0.5	+5.3

FIGURE 4

	1986-85 Percent Change in	
	% of Sales	$/CWT
Finished Goods Transportation	−6.3	−1.6
Warehousing	−10.6	−6.3
Order Processing/Customer Svc.	+4.6	−0.3
Distribution Administration	+0.3	+3.5
Inventory Carrying Cost @ 18%	−3.8	+0.3
Total	−7.8%	−4.6%

FIGURE 5
DISTRIBUTION EXPENSE AS A PERCENT OF SALES

By Direction	% of Companies	% Change
All	100%	−7.8%
Held Steady	27	0.0
Reduced	59	−16.8
Increased	14	+16.4

DISTRIBUTION COSTS PER HUNDREDWEIGHT

By Direction	% of Companies	Avg. % Change
All	100%	−4.6%
Held Steady	31	0.0
Reduced	44	−20.7
Increased	25	+17.3

Within the categories measured by the database (transportation, warehousing, etc.) there are definite trends over the last three to five years. Finished goods transportation saw a 21 percent cumulative cost decrease since 1981. Warehousing recorded a 16 percent cost decrease since 1981 reflecting successful efforts to cut inventory and improve productivity. Inventory carrying costs have dropped about 28 percent since 1983 due largely to increasing use of just-in-time stocking strategies and low interest rates (See Figure 4).

Not all distribution costs are going down. Order entry and customer service expenses rose five percent in 1986 and increased three to 10 percent every year since 1981. These increases are apparently the result of companies handling a larger volume of smaller orders, which requires more customer service personnel and cost. Additionally, competitive pressure is forcing higher quality and excellence in service, which in turn requires beefed up customer service departments and procedures.

Distribution administrative costs are rising as well, up 0.3 percent over 1985. This increase is apparently caused by firms using administrative people to reduce costs in transportation, warehousing and inventory areas.

The most important statistic to come out of the Davis DATABASE in 1986 is the fact that participants trimmed their distribution cost as a percent of sales by more than two percent from 1985. Average distribution costs dropped from 9.8 percent in 1985 to 7.76 percent in 1986. A closer look at the numbers, however shows major variances in cost-reduction performance (See figure 5). Specifically, 59 percent of the participants reduced costs by 17 percent; 14 percent saw cost increases of 16 percent; and, 27 percent remained unchanged.

These variations mean the winners have a 33 percent competitive advantage over the losers in terms of distribution costs in 1986. That 33 percent profit differential translates into a substantial three percent profit contribution to the bottom line as compared with losers.

In terms of cost-per-hundredweight, 31 percent of the participants held costs steady in 1986; 44 percent reduced costs by 20 percent; and, 25 percent increased costs by 17 percent. The differential between the cost-per-hundredweight winners and losers therefore is 38 percentage points.

The two to three percent bottom-line contribution is a very significant number. Consider that a number of industries only earned two to four percent profit in 1986. Distribution savings made the bulk of the profit for these companies in 1986.

BE A WINNER IN THE BATTLE FOR LOWER DISTRIBUTION COSTS

The average participant in the 1986 DATABASE lowered distribution costs by two percent. How does your company compare?

Herbert W. Davis and Company invites you to participate in the 1987 cost study to find out. Participants in the study will receive detailed reports that compare their distribution costs with the averages for their particular industry. There is no cost for participation. All you have to do is fill out the adjacent cost reporting form, and a corresponding customer service form in next month's issue of DISTRIBUTION, and return both to Herbert W. Davis and Company.

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NEXT MONTH

Who are all the players in the intermodal game?

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WINNING THE WAR ON PAPER

We've heard more than a few of our readers complain that paperwork is the bane of their existence. It slows business down and is prone to error. So it's no surprise that electronic data interchange (EDI) is one of the hottest technologies going today. What are the biggest advantages and disadvantages of implementing this new technology? That's what we asked in March, and some of the answers we received are listed here. For a more in-depth look at the topic, watch for our feature on EDI in the June installment of "The Computer Challenge."

"The greatest benefit of EDI is that it allows a paperless environment and increased cash flow. The greatest drawback is not knowing what to do. EDI is long overdue. Parties need to come to a common ground agreement on EDI requirements." **—B.L. Kaltenbaugh, traffic manager, Contel Texocom, Atlanta.**

"The greatest benefits are speed in handling and processing information and a dramatic reduction in the time spent on the telephone. The greatest drawback in implementing EDI is getting people to understand what you are trying to accomplish." **—W. Baxter, general traffic manager, Uniroyal Chemical Co., Middlebury, Ct.**

continued

My department uses EDI for:	
shipment status reporting	21%
purchase orders	15%
commercial invoices	13%
bills of lading	9%
freight bills	9%
rate checking	8%
funds transfer	6%
Average percentage of bills of lading being processed through EDI:	less than 1%
Average percentage of freight bills being processed through EDI:	19%
The impetus for EDI implementation has come from:	
the transportation/distribution department	63%
vendors	18%
customers	14%
carriers	5%

QUESTION OF THE MONTH

EENIE, MEENIE, MINIE, MO

How do you choose the carriers you use? Considering that shippers probably spend upwards of $50 billion a year on purchased transportation services, you would think that there would be a few well-established, time-tested, industry-wide systems for selecting carriers. There doesn't seem to be any standard, but we would like to know more about this from our readers.

Managing by the numbers is a trend in every industry, and carrier selection is no exception. Many shippers rely on sophisticated, computerized evaluation systems that constantly track carrier performance, rates, discounts, damage history and other factors. Our own Quest For Quality program is a variation of this trend.

But we also know that many experienced traffic managers depend on simple judgment and instinct to pick their carriers. Other bottom-line oriented companies let a bidding system determine who gets the transportation business.

This is an important area we all need more information about. DISTRIBUTION and its readers would like to know how your company deals with the all-important carrier selection process.

DIALOGUE

May 1987

• Which method would best describe the process by which you select carriers? (check one): ________quantitative evaluation (formal point system); ________lowest rate bidding system; ________committee selection system; ________unstructured qualitative decision; ________individual decision of one person based on his/her expertise; other (describe): ____________________

• How do you weigh the following factors? Rank from 1 (most important) to 5 (least important): ________service (transit time, equipment, reliability, etc.); ________convenience (ease of rating, billing, tracing, claims settlement, etc; ________pricing (rate levels, contract terms, discounts, etc.); ________sales effectiveness (sales force's knowledge of shippers' needs); ________promotion (informativeness of ads, brochures; appropriateness of promotional efforts).

• I think the committee approach to selecting carriers is a: ________good idea because it brings together many points of view; ________bad idea because uninformed people make decisions; ________marginal idea that tends to waste time and produces no better decisions; ________other (specify): ____________________

Carriers would help us make our selections by doing the following:

____

____

____

____

____

____

NAME (print) ____________ TITLE ____________

COMPANY ____________ PHONE ____________

ADDRESS ____________

CITY ____________ STATE ____________ ZIP ____________

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"For too long we have neglected the fact that competition is the fundamental principle of business. You are bound to get better results playing carriers off one against the other than by using a legislative club to make the carriers a collective and unified enemy. I'm sick and tired of meetings where competing roads must discuss how the next skirmish in the ongoing war with our customers will be conducted. This crazy mentality is not helping American coal to compete."—**Charles N. Marshall, senior vp, marketing and sales, Conrail, to the National Coal Assn.**

•

"ATA could have worked with our coalition to generate a reasonable consensus on economic regulation, but they chose instead to promote their own short-term interests. Their unwillingness to cooperate has transformed a gentlemanly disagreement into a crusade. ATA has reaffirmed its status as the 'Flat Earth Society' of the nation's transportation system."—**Richard D. Henderson, executive vp, Private Truck Council of America, on the American Trucking Associations' Blue Ribbon Task Force report on economic regulation.**

WAR ON PAPER continued from p. 7

"The greatest benefit of implementing EDI is knowing the status of all inbound and outbound shipments. This reduces overall tracing requests and misguided shipments. The greatest drawback is that not all carriers are equipped to handle EDI with shippers."—**B. Joy, traffic manager, Power Lawn Mower Parts, Rochester, N.Y.**

"The greatest benefits are improved productivity, getting people off the phones, and a reduction in paper and paper files. The greatest drawbacks are a lack of standardized telecommunications formats and decisions as to whether to go system to system or through a third-party network."—**Gerald Miller, export traffic manager, 3M Co., Woodbury, Minn.**

"The greatest benefits of EDI include streamlining the paper flow, reducing input efforts and quick access to information. The greatest drawback is that the players involved do not have adequate computer training and don't know the full potential of an EDI program."—**Regis Visco, coordinator, general transportation, Eastman Kodak, Rochester, N.Y.**

"We don't know what the greatest benefits or drawbacks are yet, but we will be attending the National Furniture Traffic Conference on EDI in May to better understand it."—**Dwight L. Smith, vice president, materials, Schnadig Corp., Chicago.**

"The greatest benefits of EDI include reductions in manual workload, manpower and cost per transaction. The biggest drawbacks are negative attitudes toward EDI and inaccurate carrier billing practices."—**L.R. Kalb, manager, freight systems and services, Mobay Corp., Pittsburgh.**

"The greatest benefits of implementing EDI include complete, accurate information available to everyone; a decrease in sorting and shuffling paper; and easy analysis of transportation data such as loading and unloading times, accessorial charges by carrier, by customer and by product. The greatest drawbacks include the lack of computer sophistication and the resistance of people to let electronic messages and records replace paper and files."—**David. J. Tough, material management specialist, Dow Chemical Canada, Sarnia, Ontario.**

"The greatest benefit of implementing EDI is the elimination of repetitive handling of data. The greatest drawback is the start-up costs of implementing an EDI system."—**P. Marbach, controller, Transamerica Distribution Services, Downers Grove, Ill.**

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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE JUNE 1987

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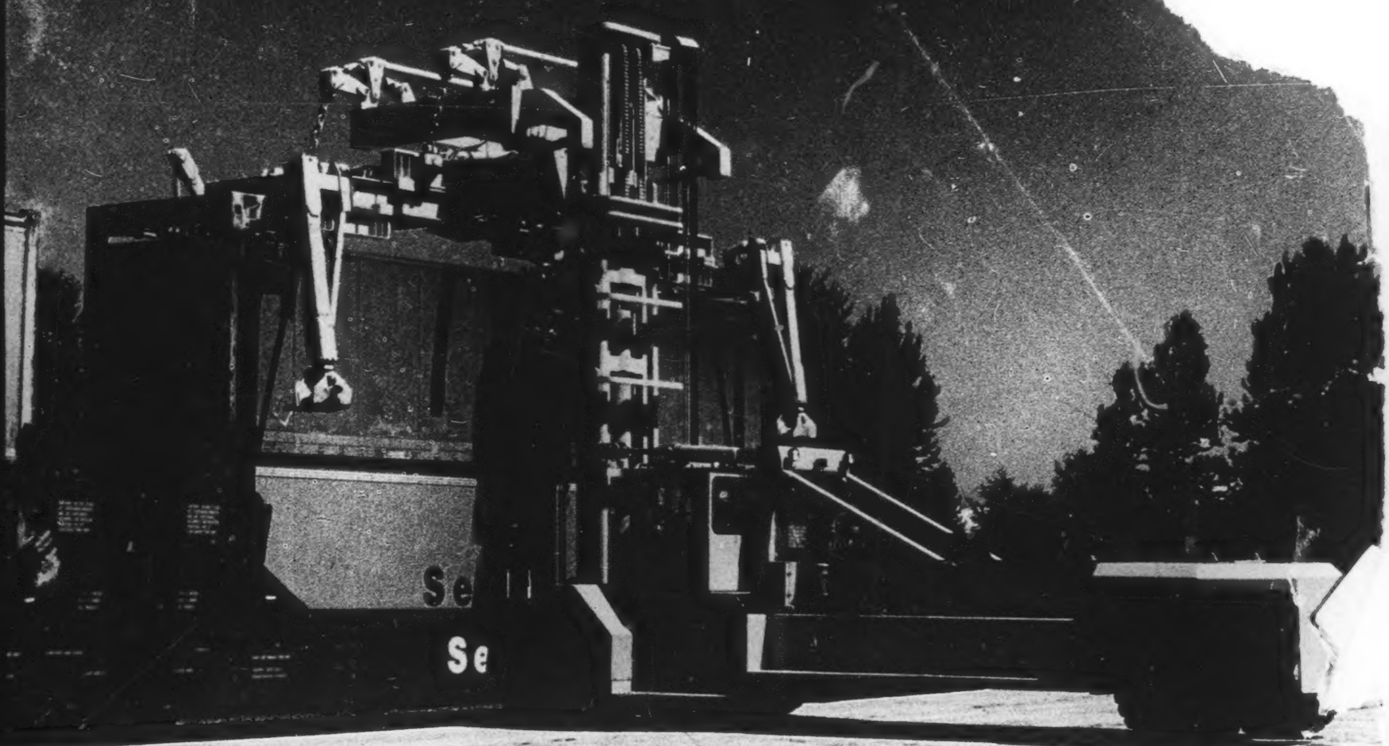
PICKING UP ON INTERMODAL'S PROM



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BETHESDA MD 20814

TH ABOUT REBATES

AREER PRIMER

EDI: DATA ON THE FAST TRACK

THE COMPUTER EXPO CATALOG

VOL. 86, NO. 6

CHILTON'S

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JUNE 1987

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Intermodal traffic is growing, but for shippers, a few nagging issues still lurk. The quality of service from the railroads, a growing list of middlemen, and liability problems remain question marks.

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These three companies are showing that it's not how much transportation costs that counts; it's what you get for your buck.

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Electronic Data Interchange is becoming a part of many logistics solutions. It's time to get with the program.

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As this dramatic episode points out, we had better play by the rules—as silly as they might be.

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DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co. is a division of American Broadcasting Companies, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1987. Subscription rate: U.S. and possessions, $40 per year. Canadian, $50. Foreign $70 Single issue $2.00 except Distribution Guide Issue—$40 per copy. Address editorial correspondence to Editor-in Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy othe article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

AUDITING THE AUDITORS

Shippers generally favor the use of freight bill auditing services, according to the responses to our April Dialogue card. There were qualifications to these favorable responses, however, and there was a vocal minority who feel auditors are a waste of money—performing services shippers are better able to do themselves. Apparently, numerous shippers have been burned by disreputable auditors, and thus the greatest caveat is to thoroughly check out an auditing service before signing up.

"Do a background check that includes looking into the relationships the auditor has with various carriers. Remember, the auditing firm will be using your company's name as its own."—**Donald A. Nichols, distribution manager, Guardian Industries Corp., Carleton, MI.**

"Be sure that your auditor is aware of all your pricing programs which affect the bills being audited."—**Ron Skjefstaf, traffic & distribution manager, SICO Inc., Minneapolis.**

continued

Average number of freight bills audited per month:	
in-house by hand	4,032
in-house by computer	2,546
by an auditing firm	2,900
by outside computer base	2,250
Approximate freight bill expenditures:	
$0 to $100,000	9%
$100,000 to $500,000	15%
$500,000 to $1 million	15%
$1 million to $5 million	24%
$5 million to $50 million	33%
Which bills represent largest number of errors?	
LTL	71%
Rail	13%
Rate the service of your auditing firm on a scale of 1 (highest) to 5 (lowest):	
volume of bills audited	2.0
amount of recoveries	2.5
speed of processing	2.2
cost of service	1.9

QUESTION OF THE MONTH

ARE YOU READY FOR 'COMPETITIVENESS'?

The alarming deficits in our international balance of trade have again focused national attention on the need for more U.S. exports. With the falling dollar making our goods more price-competitive overseas, many U.S. manufacturers are again looking at the sales and profit opportunities in overseas markets. To help spur us toward greater export success, the politicians have even invented the buzzword "competitiveness" to explain the obvious need to make better products and to use better marketing and distribution strategies.

The question we have for our readers is, Do they think their companies and their departments are really competitive when it comes to exporting products? Do we have the expertise to distribute overseas as well as we do in the U.S.? What are the things we have to do better? Do we have the will to improve our international distribution methods to beat out Japanese and German competitors?

Let us know where you think the U.S. stands in the world marketplace by answering the questions on the card below.

DIALOGUE

June 1987

• I would rate the export expertise of our company now as:

________Sadly lacking
________No worse than other U.S. companies
________As good as our foreign competitors
________Great! Bring on the competition!

• For my company to be more export competitive, we need to know more about (check all that apply):

________Simple things like documentation, trade terms, etc.
________International transportation services
________How distribution is done overseas
________How our foreign competitors operate
________Other ____________________

• To help my company get more export competitive, I'd be willing to (check all that apply):

________Take courses on my own time to learn more.
________Take on exports in addition to my current work.
________Travel overseas to visit shows, customers, carriers, etc. to set up a distribution network.
________Move overseas to operate our international distribution network.

My advice for any company trying to be more export competitive is:

NAME (print) TITLE
COMPANY PHONE
ADDRESS
CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of DISTRIBUTION editors:)

"Railroads today have the unique opportunity to create something the truckers have had for decades—a transportation network. Interline services with run-through trains, joint terminals, common use of freight cars and locomotives are all part of what is involved, and we have the wherewithal to manage it to the benefit of the customer."—**L. Stanley Crane, chairman and CEO, Conrail, at the International Intermodal Expo.**

•

"Had this (Consumers United For Rail Equity) bill been written in Economics 101 class, its drafters would have long ago flunked out. How does it help you if railroads are forced to retain and finance excess capacity? How does it help you if railroads are subject to intrastate regulation that would put increased upward pressure on interstate rates? In other words, how were things for you during the 1970s, when some railroads were bankrupt, equipment shortages were rampant, rail service was uneven, and speeds were kept as low as 10 miles per hour because we couldn't afford to maintain our track?"—**William H. Dempsey, pres., Ass'n of American Railroads.**

AUDITING THE AUDITORS continued from p. 7

"Check the auditing firms' track record in terms of timeliness of payments. Aged accounts receivables can cause your freight costs to rise as much as five percent."—**Tim Kubiak, transportation manager, Volvo White Truck Corp., Greensboro, NC.**

"Pay close attention to what the firm expects of you. If they want nothing more than bills to look at they aren't doing their job. Surprisingly, many firms don't ask to see your contracts or the tariffs the carriers are using to rate your bills."—**W. James, traffic manager, Superior Fireplace Co., Fullerton, CA.**

"Request timely returns on a predetermined schedule. Negotiate the rate. The usual 50/50 split is no good. Simplified TL and LTL rates streamline a system so that post-audits come up with very little."—**Gregory J. Duplin, distribution services manager, The Hoover Co., North Canton, OH.**

"Unless you can provide F.O.B. terms in and out and proper classifications, auditors will only be able to recover duplicate payments and extension errors. A more in-depth analysis needs to be done by the shipper before benefits of audits reach an optimum level."—**Jack J. Hanus, corp. transportation manager, Miller Electric Manufacturing Co., Appleton, WI.**

"Get an auditor who can explain to you what he's doing and why, then maybe you can correct some of the errors prior to submitting invoices for audit. Also, the auditor should support all reductions in writing, stating tariff and item number used for the reduction."—**Terry J. Eickman, corporate director of traffic, Portec Inc., Oak Brook, IL.**

"Start with a good pre-audit program. This practically eliminates the need for a post-audit. Pay freight charges directly to the bank, not to the audit firm. This protects you from audit firm insolvency or failure to forward funds."—**Paul Weber, national physical distribution manager, Agfa Gevaert Inc., Teterboro, NJ.**

"An outside audit firm is no substitute for an in-house pre-audit. Remember, on a 50-50 split you don't save 50%, you *lose* 50%. Do your own pre-audit first, then send the bills out for post audit."—**James J. Paule, traffic manager, Spangler Candy Co., Bryan, OH.**

"Do it yourself with a service such as Numerax or with software. The use of an audit firm is a waste of money. Most audit firms do not have all discount information, and therefore can't do a good job."—**Henry M. Peckham, Southern Flavoring Co., Bedford, VA.**

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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE AUGUST 1987

QUEST FOR QUALITY

EXCELLENCE IN
ORTATION AND
OGISTICS
AGEMENT

VOL. 86, NO. 7
CHILTON'S
DISTRIBUTION
AUGUST 1987

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The nation's shippers pick their quality carriers—those who set the standard for excellence in transportation service.

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Three private fleets have come into their own since getting a new lease on life.

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It was tough not to make money in the trucking business last year. But success can be 'fleeting.' Consider the events that have unfolded so far in 1987.

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NEXT MONTH

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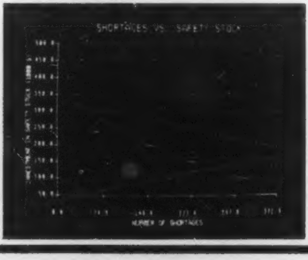

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MAKING THE CARRIER SELECTION GAME EASIER

What can carriers do to make shippers' carrier selection process easier? What information do they need? That's what we asked in May, and the volume of responses was overwhelming. Here's what our readers have to say:

"I would like to see carriers adopt a standardized format for presenting their rates and service capabilities. One company soliciting my business sent me a 2-page brochure detailing what I needed to know. Another company sent me a 4-lb. book."—**Jesse Charland, shipping director, Goodheart Clothing, Jersey City, N.J.**

"Carriers would help us by establishing initial/trial use rates to allow prospective customers to evaluate service levels without significant cost impact due to lost quantity discounts."—**A. Clay, materials mgr., Parker-Biomedical, Irvine, Calif.**

"Carriers would help us make our selections by explaining their services and pricing and then gently backing off."—**Beni Turan, traffic mgr., Intermec Corp., Lynnwood, Wash.**

continued

By which method do you select carriers?	
decision of one person	51%
lowest rate bidding system	15%
formal point system	12%
Unstructured qualitative system	10%
Weigh the following factors from 1 (most important) to 5 (least important):	
service	1.20
pricing	1.93
convenience	3.06
sales effectiveness	3.48
Carrier selection by committee is a:	
marginal idea	52%
bad idea	25%
good idea	17%

QUESTION OF THE MONTH

3RD PARTY LOGISTICS: WAVE OF THE FUTURE?

American business is becoming more competitive, more efficient. For many companies, this has meant doing more with less—downsizing operations.

Often it is the distribution department that feels the effects first. In many cases, head counts are reduced—sometimes drastically. Budgets are slashed. Resources are thin.

More and more companies today are responding by looking outside for transportation services and logistics management. Some have even spun off the logistics function of the company into a separate unit. Caterpillar Logistics and Kaiser Logistics Services are two good examples.

Is 3rd party distribution the wave of the future? Will this be the mainstream method for handling logistics in the 1990s and beyond?

Because it affects so many of you directly, this could be *the* issue in logistics for the next few years. We want to know how you perceive the trend toward 3rd party logistics services. Let us know your views by filling in the answers on the Dialogue card below.

DIALOGUE

August 1987

- We use these 3rd party logistics services regularly (check all that apply): ____contract carriage (instead of private fleet); ____freight bill auditing/payment; ____consultants; ____contract warehousing; ____public warehousing; ____parts distributor; ____full service distributor; ____total 3rd party logistics service; ____export management or trading company
- Our use of 3rd party transportation and logistics services is ____greater than/____less than it was five years ago.
- Do you find that 3rd party operations generally can provide services more cost effectively than your staff? ____Yes ____No.
- Do you see your company moving toward replacing any part of the transportation/distribution department with a 3rd party transportation and logistics vendor? ____Yes ____No.
- If so, what departments are most likely to be replaced (check all that apply): ____traffic; ____private fleet; ____private warehouse ____other (describe) ____

In the long-term competitiveness of my company, here's how I see us using 3rd party logistics services and why:

NAME (print) TITLE

COMPANY PHONE

ADDRESS

CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of DISTRIBUTION editors:)

"Already, as a result of domestic deregulation, new marketing strategies and development of new technologies, the traditional distinctions between ocean, rail and over-the-road carriers have blurred. This is a time of change and transition. And while it has caused some confusion—both within the customer community and the industry—I feel this blurring of distinctions points the way for the next phase.

"We are now moving beyond the business of *transportation* into the business of *distribution*. . . The basic difference between intermodalism and the new phase we are entering is that intermodal transportation focuses on simply hauling the container from point-to-point, while distribution involves understanding, managing, and even controlling, the overall economics of the total move, including all the related domestic and foreign segments in the distribution or product manipulation processes."—**Bruce Seaton, chairman, American President Companies, upon receiving the Containerization & Intermodal Institute's 16th annual Connie Award.**

CARRIER SELECTION continued from p. 7

"Carriers would help us by presenting themselves based on service, convenience, and price. The choice of a carrier should not be arbitrarily based on entertainment abilities."—**T. Ksionzyk, warehouse mgr., Hitachi Power Tools, Norcross, Ga.**

"Carriers would help us by having a real desire to haul our freight, a one-to-one contact concerning service and delivery time—showing an 'I care' attitude."—**Jerry Richmond, traffic mgr., Skyline Skylites, Colorado Springs, Colo.**

"Carriers would help us by coming to the meeting prepared to defend their rates with financial data that is realistic. I personally try to ensure that a carrier makes a profit on our moves."—**David Weintraub, mgr., transportation, General Cinema Beverages, Atlanta.**

"Carriers would help us by setting up a 'flat' computer file on floppy disk composed of the carrier's points served and transit times to be compared with a customer's facilities, destinations shipped to, and origins received from . This will help establish the best coverage and will reduce the number of carriers needed at each facility."—**Andrew Gillespie, transportation analyst, American Standard Co., Piscataway, N.J.**

"Carriers must maintain the correct blend of dependable service, rates priced according to the mix of freight available, and knowledgeable and personable sales and operations personnel. The biggest help would be letting shippers know truthfully exactly where the best lanes are and zero in on service. We're always going to come back to needing that most."—**Lynne J. Brown, traffic mgr., Bradley Corp., Menomonee Falls, Wis.**

"Carriers would help us make our selections by simply stating what they can do for me, and by not telling me what kind of discount they'll provide, or asking me what kind of discount I'm getting. I'd rather see the base rates in the applicable tariff than hear about a certain discount level."—**M. DiFronzo, traffic supervisor, Taylor Publishing Co., Paoli, Pa.**

"Carriers would help us by more clearly identifying their strengths—direct service points, strong lanes, backhaul lanes where more competitive pricing may be offered. Much more can be done by the carrier to help the shipper determine whether the carrier fits its distribution strategy."—**Dennis Glavan, mgr. corporate transportation, Becton-Dickinson and Co., Franklin Lakes, N.J.**

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The nation's shippers pick their quality carriers—those who set the standard for excellence in transportation service.

QUEST FOR QUALITY

DISTRIBUTION's 1987 QUALITY CARRIERS

REGIONAL MOTOR CARRIERS
- Arkansas Freightways
- Averitt Express
- Con-Way Central Express
- Fore Way Express
- Holmes Transportation
- NW Transport Service
- Preston Trucking
- Red Star Express
- Southeastern Freight Lines
- Stoops Express
- TNT Bestway
- TNT Holland Motor Express
- TNT Overland Express

NATIONAL/INTER-REGIONAL MOTOR CARRIERS
- Consolidated Freightways
- Roadway Express, Inc.
- Yellow Freight System

TRUCKLOAD CARRIERS
- Builders Transport
- Inway

VAN LINE SERVICE
- Allied Van Lines
- United Van Lines

AIR EXPRESS CARRIERS
- Burlington Air Express

AIRLINES
- British Caledonian
- KLM Royal Dutch Airlines
- SAS Scandinavian Airlines
- Thai Airways

AIR FORWARDERS
- Lynden Air Freight
- Pilot Air Freight

RAIL CARRIERS
- Burlington Northern Railroad
- Denver & Rio Grande Western
- Grand Trunk Western Railroad
- Missouri-Kansas-Texas Railroad
- Union Pacific Railroad

SHIPPERS' AGENTS
- National Piggyback

RAILCAR BUILDERS/ LESSORS
- ACF
- GATX

OCEAN CARRIERS
- Canada Maritime
- Columbus Line
- Hapag-Lloyd
- Manchester Liners
- OOCL
- Trans Freight Lines
- Westwood Shipping

"Value—that's really what a shipper is looking for in carrier performance," says Earl W. Beck, director-transportation for the Eaton Corporation in Cleveland. "Service and price are the two main elements we consider, and fortunately, the carriers we use tend to be very competitive in these areas. Where carriers are really differentiating themselves these days is in quality of communication with the shipper. Only a few carrier salesmen consistently keep us informed of the status of our shipments. Only a few carrier salesmen make enough meaningful calls on their major customers. If there is one area that needs improvement, it is certainly sales effectiveness and communications."

Earl Beck was one of more than 1,300 shippers who participated in DISTRIBUTION's 1987 *Quest For Quality* survey. His comments neatly sum up the most important conclusion to be reached from the thousands of carrier ratings made by shippers in our survey: Carrier service and prices are good, but communication needs improvement.

The 1987 *Quest For Quality* program is DISTRIBUTION's fourth annual survey and report of how shippers rate the individual carriers and vendors of transportation services they use according to four key measurements of transportation quality: Service, Convenience, Price and Sales Effectiveness.

The purpose of this survey has always been to teach by example. *Quest For Quality* singles out those transportation companies that have:

- Identified shippers' needs and developed truly innovative services to meet those needs;
- Performed these services dependably and consistently with attention to essential follow-up;
- Trimmed operating costs to be able to offer the services at reasonable, affordable prices;
- Made doing business with the transportation vendor easy and convenient;
- Sold their services after learning about the shipper's business; and,
- Kept customers informed about the transportation companies' capabilities.

DISTRIBUTION's *Quest For Quality* survey draws on the experience of the nation's shippers who have rated the carriers they use regularly by responding to a series of special ballots. The scores on the following pages are based on shipper ratings ranging from 0 (unacceptable) to 5 (outstanding). A full explanation of the methodology used in the survey appears on page 29.

As our survey points out, perfect performance is a goal that no carrier will ever meet. What is important and gratifying is that the transportation industry is committed to an ongoing pursuit of continual quality improvement.

QUEST FOR QUALITY

NATIONAL/INTER-REGIONAL CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	***3.33***	***3.37***	***3.29***	***3.10***
ABF	***3.35***	***3.42***	*3.25*	*3.09*
ANR	*3.04*	*3.07*	*3.19*	*2.88*
ARA Smith's	*3.04*	*3.09*	*3.04*	*2.80*
American Frt. Sys.	*3.19*	*3.30*	*3.25*	*3.03*
Bowman	*2.75*	*2.86*	*3.11*	*2.61*
Brown Transport	*3.22*	*3.07*	***3.29***	*2.88*
Carolina Frt. Carriers	***3.47***	***3.41***	*3.19*	*3.08*
Consolidated Frtways	***3.33***	***3.50***	***3.37***	***3.24***
FFE Transport Services	*2.86*	*2.81*	*2.52*	*2.20*
Overnite Trans.	***3.51***	***3.44***	***3.37***	*3.01*
P.I.E. Nationwide	*3.10*	*3.16*	*3.23*	*2.95*
Roadway	***3.58***	***3.61***	***3.41***	***3.32***
TNT Pilot Freight	*3.27*	*3.25*	***3.38***	***3.10***
Thurston Motor Lines	*2.98*	*3.09*	***3.35***	*2.75*
Transcon	*3.16*	*3.11*	*3.06*	*3.09*
Watkins Motor Lines	***3.69***	*3.27*	***3.35***	***3.25***
Yellow Freight	***3.65***	***3.72***	***3.42***	***3.45***

SPECIALIZED CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	***3.75***	***3.49***	***3.04***	***2.93***
Leaseway Transportation	*3.16*	*3.13*	*2.69*	*2.35*
Roberts Express	***4.45***	***4.14***	*2.76*	*2.96*
Spartan Express	*3.51*	*3.21*	***3.36***	***3.10***

VAN LINE SERVICE CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	***3.50***	***3.40***	***3.21***	***3.22***
Allied Van Lines	***3.51***	***3.59***	***3.24***	***3.31***
Atlas Van Lines	*3.33*	***3.50***	*3.19*	***3.35***
Bekins Van Lines	*3.16*	*3.06*	*2.97*	*2.97*
Mayflower	*3.22*	*2.93*	*3.00*	*3.00*
North American Van Lines	***3.53***	*3.36*	*3.20*	*3.09*
United Van Lines	***3.84***	***3.66***	***3.37***	***3.63***

TRUCKLOAD CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	***3.55***	***3.25***	***3.41***	***2.81***
Builders Transport	***4.10***	***3.83***	***3.63***	***3.07***
CRST	*3.39*	*2.95*	***3.50***	*2.80*
Gemini	*3.11*	*2.96*	*3.11*	*2.77*
Inway	***3.58***	***3.63***	***3.46***	***3.29***
J.B. Hunt	***3.86***	***3.54***	***3.77***	*2.88*
Poole Truck Lines	*3.53*	*2.87*	*3.07*	*2.27*
Ranger Transportation	***3.61***	***3.43***	*3.20*	*2.86*
Ryder Freight System	*3.02*	*2.68*	*2.83*	*2.33*
Scheduled Truckways	*3.33*	***3.43***	***3.86***	***3.55***

MOTOR CARRIERS

For the nation's largest LTL motor carriers, discounts have kept rates low while shippers continue to demand premium service and continuing innovations such as EDI and diskette rating systems. Judging from the higher average scores for 1987 compared to those for 1986, the big LTL carriers have met the shipper's demands very well.

Yellow, **Roadway** and **CF** earned the highest overall scores, suggesting that the "Big Three" have created the standard for the LTL marketplace.

"I'd be hard-pressed to say which is better overall," says Bruce Slater, distribution manager for Burdick Corp. "Roadway has better pricing in many areas. CF's EDI program is truly excellent. They all have good service."

High quality trucking service is not limited to three carriers. Six carriers scored better than a neutral 3.00 in all four categories.

Shippers with special needs for customized service such as just-in-time production have given rise to so-called specialized carriers, who try to provide extra-high level service. The average service scores for this group are impressive. Shippers generally perceive prices to be too high.

Van Lines are another group of specialized carriers satisfying the shipping public. As a group the van lines produced the best overall scores for all the motor carriers. **Allied Van Lines** and **United Van Lines** lead the group, but practically all scores for all van lines were above the neutral benchmark of 3.00.

Truckload carriers generally produced some of the highest service and price scores for all motor carriers. Sales effectiveness scores, however, were the lowest of the motor carriers. Only **Builders Transport** and **Inway** earned above-average scores in all categories.

QUEST FOR QUALITY

BULK CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.35**	**3.18**	**2.61**	**2.71**
Chemical Leaman	3.20	3.14	2.60	2.68
DSI Tank Lines	**3.62**	**3.42**	2.69	**3.50**
Matlack	3.33	3.13	2.48	2.42

REGIONAL CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.49**	**3.29**	**3.14**	**2.99**
AAA Cooper	**3.73**	**3.43**	3.11	2.97
AAA Trucking	2.96	2.90	2.88	2.19
A&H Truck Line	3.39	3.04	3.11	2.57
APA Transport	3.29	3.00	2.54	2.68
Arkansas Freightways	**4.00**	**3.78**	**3.63**	**3.47**
Armellini Express Lines	**4.38**	**3.77**	**3.62**	2.00
Averitt Express	**4.18**	**3.82**	**3.42**	**3.51**
CW Transport	3.44	**3.29**	**3.22**	**3.13**
Central Freight Lines	3.33	3.04	2.86	2.59
Central Transport	3.01	2.87	**3.14**	2.64
Churchill Truck Lines	3.28	3.02	2.81	2.94
Con-Way Central Express	**3.99**	**3.69**	**3.14**	**3.36**
Con-Way Eastern Express	3.27	3.19	**3.42**	**3.14**
Con-Way Western Express	**3.56**	3.27	2.96	2.87
Duff Truck Line	3.19	3.16	3.05	2.78
Estes Express	3.32	3.06	2.74	2.53
Fore Way Express	**3.74**	**3.49**	**3.52**	**3.13**
Frederick Transport	**3.63**	**3.33**	**3.65**	2.57
GI Trucking	2.70	2.98	2.91	2.38
Holmes Transportation	**3.55**	**3.40**	**3.41**	**3.13**
Jones Truck Lines	**3.52**	3.26	**3.34**	2.98
Milne Truck Lines	3.34	**3.33**	3.13	2.86
Mistletoe Express	2.72	2.79	2.74	2.20
New Penn Motor Express	**3.75**	**3.38**	2.86	2.99
NW Transport Service	**4.64**	**4.07**	**3.79**	**4.71**
Old Dominion Freight	3.23	2.97	**3.30**	2.99
Preston Trucking	**3.49**	**3.44**	**3.20**	**3.16**
Red Star Express*	**4.29**	**3.93**	**3.43**	**3.71**
St. Johnsbury	3.35	3.28	3.04	2.92
Sanborn's Motor Express	**3.54**	3.27	3.08	**3.06**
Southeastern Frt. Lines	**4.21**	**3.79**	**3.55**	**3.57**
Standard Trucking	3.02	3.00	2.96	2.87
Stoops Express	**3.74**	**3.29**	**3.55**	**3.26**
TNT Bestway	**3.57**	**3.29**	**3.19**	**3.19**
TNT Holland	**4.05**	**3.72**	**3.39**	**3.62**
TNT Overland Express	**3.76**	**3.52**	**3.28**	**3.36**
Transus	2.89	2.84	2.98	2.53
Viking Freight	**3.55**	3.28	2.82	2.65

**Red Star Express is now TNT Red Star Express.*

MOTOR CARRIERS

The most specialized transportation companies rated were the bulk carriers, and consequently, only a few received enough votes to report. The major carriers with enough votes to report all produced very respectable service and convenience scores. Ratings, however, dropped off for price and sales effectiveness.

"I realize tank truck service is expensive to offer," says a chemical shipper in Delaware, "but there is no way we can be competitive in new markets with present rate levels. Also, the carrier salesmen do not seem to have the authority to adjust price. It's difficult to deal with bulk carriers under these circumstances."

The regional LTL carrier average scores were slightly below those for the big LTL carriers in all categories except service. Thus shippers expect, and receive, comparable if not better service from their regional carriers than from the national carriers.

"Transit times and reliability are what matter with the regional carriers we use," says Paul Hill, traffic manager for Niagra Envelope Company of Buffalo. "We depend on these carriers for fast deliveries, often overnight. There is not much room for error."

The area where the regional carriers as a group produced the poorest scores was in sales effectiveness. "We expect carrier sales reps to follow up in writing on key questions and be able to explain the various sales reports to our people. Very few regional sales reps do this on a consistent basis," says a New York shipper.

Regional carriers receiving the highest scores were **Arkansas Freightways, Averitt, Con-Way Central, Fore Way, Holmes, Northwest, Preston, Red Star, Southeastern, Stoops, TNT Bestway, TNT Holland, and TNT Overland.**

QUEST FOR QUALITY

CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.33**	**3.17**	**3.14**	**2.90**
Boston & Maine	1.64	2.05	2.23	1.95
Burlington Northern	**3.49**	**3.57**	**3.53**	**3.12**
CSX	3.13	**3.26**	3.07	2.85
Canadian National	3.29	**3.24**	2.97	2.75
Canadian Pacific	**3.38**	3.07	2.89	**3.04**
Chicago & Northwestern	**3.37**	3.15	3.23	2.92
Conrail	3.29	2.96	**3.16**	2.64
Delaware & Hudson	2.00	2.18	2.13	2.13
Denver & Rio Grande	**3.79**	**3.37**	**3.52**	**3.25**
Florida East Coast	**4.00**	3.11	**3.67**	**3.16**
Grand Trunk Western	**3.48**	**3.18**	**3.14**	**3.01**
Illinois Central Gulf	2.93	2.90	2.90	2.68
Kansas City Southern	**3.42**	3.09	3.09	**3.41**
Missouri-Kansas-Texas	**3.55**	**3.34**	**3.59**	**3.39**
Norfolk Southern	**3.63**	**3.48**	3.13	**3.37**
RF&P Railroad	**3.43**	**3.29**	3.00	2.25
St. Louis SW Railway	**3.41**	**3.19**	**3.15**	2.89
Santa Fe	**3.63**	**3.34**	**3.24**	2.84
Soo Line/Milwaukee Road	3.17	3.07	**3.27**	2.93
Southern Pacific	3.05	3.14	2.96	2.52
Union Pacific Railroad	**3.61**	**3.37**	**3.14**	**3.32**

RAIL FORWARDERS, AGENTS & CONSOLIDATORS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.56**	**3.40**	**3.35**	**3.02**
Alliance Shippers	3.16	2.89	3.22	2.78
Clipper Exxpress	3.18	3.18	2.82	2.36
Greater South Traffic	3.33	**3.40**	3.29	**3.08**
The Hub Group	3.38	3.27	3.32	**3.24**
ITOFCA	3.50	3.27	3.13	2.93
National Piggyback	**3.88**	**3.48**	**3.63**	**3.45**
Trailer-Train	**3.70**	**3.60**	**3.40**	3.00

RAILCAR BUILDERS & LESSORS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.77**	**3.73**	**3.41**	**3.51**
ACF	**4.23**	**4.00**	**3.50**	**3.57**
GATX	**4.15**	**4.15**	**3.48**	**3.90**
GE Railcar	3.44	3.31	3.12	3.12
Pullman Leasing	3.29	3.64	**3.50**	3.43
Union Tank	3.69	3.56	3.18	3.47

RAIL SERVICES

The rail carriers showed the broadest range of results of any of the modal groups. The railroads with the highest scores have clearly focused on the needs of shippers.

"The railroads that rate highly with us really try to find out what we need before they ask for new business," says Andy Moriarty, manager of tranportation for Wickes Lumber of Mundelein, Ohio. "One railroad set up a winter plywood program offering us reduced rates in the fall and winter. That has helped us meet inventory and cost goals."

Railroads receiving the best overall scores were **Burlington Northern, Denver & Rio Grande Western, Grand Trunk, Missouri-Kansas-Texas,** and the **Union Pacific.**

According to shippers DISTRIBUTION interviewed, the majority of problems are simple service failures and lack of follow up to resolve problems. Increasingly, shippers are finding it harder to communicate with the railroads who use central telephone numbers for customer service.

"Half the time you end up getting a recorded message," says Martin C. Bytell of Martin Brower in Chicago. "That's not very helpful for shippers who need information immediately."

The middlemen in the rail and intermodal business are important to shippers looking for more personal service. The excellent average scores in this group of forwarders, agents and consolidators show that shippers are getting what they want. **National Piggyback** received the high scores.

Shippers using railcar lessors are receiving exceedingly high quality service according to our survey. All lessors reported here produced scores in the favorable range (over 3.00) in all categories. **ACF** and **GATX** received the highest scores overall.

QUEST FOR QUALITY

WATER CARRIERS

Ocean carriers as a group received among the highest average scores in each performance category. Shippers have high expectations, and these expectations apparently are being fulfilled.

"We were one of the first U.S. companies to adopt just-in-time manufacturing, and our entire production line is dependent on reliable arrival times," says Robert Ziegler, traffic supervisor for Harley Davidson Motor Co. in York, Pa. "We have learned to be much more aware of time and service. Generally, we are very pleased with the ability of our carriers to meet our service requirements. We like to use carriers that offer landbridge services even though it costs about $350 per box more. One of our key selection elements is 'recovery ability'—that is, to maintain transit times even if problems arise."

Seven ocean carriers received marks above average for the industry in all four categories: **Canada Maritime, Columbus Line, Hapag Lloyd, Manchester Liners, OOCL, TFL** and **Westwood Shipping.**

While ocean carriers as a group received respectable sales effectiveness scores, shippers singled out this area for a multitude of negative comments.

"The biggest difference between carriers is the quality of sales people," says Renate Ibe, traffic manager for Millmaster Onyx Group in Fairfield , N.J. "A few are very knowledgeable about my business and my needs, but the majority waste my time. These sales reps actually lose business for their companies. These steamship lines had better wise up."

The inland barge group did not generate widespread response in our survey, but based on the response received, shippers are highly satisfied with the carriers in this group.

STEAMSHIP LINES

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.56**	**3.37**	**3.19**	**3.10**
American Pres. Lines	**4.13**	**3.84**	2.65	**3.29**
Atlantic Container Line	**4.14**	**3.83**	2.90	**3.88**
Atlanticargo	3.42	**3.45**	**3.33**	2.92
Barber Blue Sea	**3.68**	**3.56**	**3.21**	2.68
Canada Maritime	**3.89**	**3.68**	**3.95**	**3.68**
Cast North America	3.41	**3.38**	**3.63**	**3.26**
CGM	3.55	3.10	**3.36**	**3.27**
Chilean Line	3.50	3.07	2.79	2.43
Columbus Line	**3.61**	**3.50**	**3.21**	**3.32**
Dart Containerline	**3.57**	3.33	3.00	2.89
EAC Lines	**3.67**	3.33	**3.93**	**3.33**
Evergreen	**3.61**	3.23	**3.78**	2.29
Farrell Lines	3.00	2.91	**3.22**	3.13
Hanjin Container Lines	3.30	3.16	**3.39**	2.32
Hapag Lloyd	**4.03**	**3.67**	**3.26**	**3.64**
Hoegh	**3.80**	**3.50**	**3.80**	2.67
Hong Kong Islands Line	2.41	2.88	**3.88**	2.56
Italian Line	3.20	3.20	**3.30**	**2.20**
Ivaran Line	3.47	**3.43**	2.73	**3.29**
Japan Line	3.06	3.06	2.94	2.69
K Line	**3.78**	**3.71**	3.06	**3.35**
Korea Shipping	2.64	2.36	2.85	2.50
Lykes Bros.	**4.00**	**3.67**	3.05	**3.57**
Maersk Lines	**4.29**	**3.81**	3.11	**3.43**
Manchester Liners	**4.08**	**3.85**	**3.38**	**3.50**
Matson Navigation	**4.08**	**3.75**	3.00	**3.33**
Mitsui O.S.K.	**4.10**	**3.70**	**3.26**	2.95
NYK Line	3.53	3.29	**3.33**	2.87
Nat'l Shipping Co., S.A.	3.23	2.92	3.00	2.92
Navieras de Puerto Rico	2.92	3.08	2.75	2.83
Nedlloyd Lines	3.46	3.22	3.13	**3.43**
Neptune Orient Lines	3.37	3.11	2.94	2.61
OOCL	**3.58**	**3.58**	**3.19**	**3.64**
Polish Ocean Lines	3.21	2.93	**3.57**	2.43
Sea-Land Service	**3.60**	**3.58**	2.86	**3.18**
Trailer Marine Trans.	**3.71**	**3.71**	2.93	**3.21**
Trans Freight Lines	**3.68**	**3.54**	**3.28**	**3.38**
United States Lines	2.45	2.36	2.63	2.48
Westwood Shipping	**3.73**	**3.53**	**4.14**	**3.80**
Y.S. Line	**3.83**	3.09	**3.40**	**3.64**
Zim Container Service	3.17	3.00	**3.35**	2.55

INLAND BARGE LINES

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.66**	**3.34**	**3.28**	**3.27**
American Commercial Barge	**4.09**	3.00	2.82	**4.27**

QUEST FOR QUALITY

AIR & EXPRESS SERVICES

The 1987 results for the combination passenger/cargo airlines were very similar to the lackluster 1986 results. Generally, shippers continue to be dissatisfied with all aspects of cargo performance for the scheduled airlines, and are especially unhappy with the carriers' sales effectiveness. The average of 2.21 was the second lowest average for any mode of transportation. The problem seems to be that air carriers have left the sales function entirely to the forwarders and have lost contact with the customer.

"In many cases I would prefer to deal directly with the air carrier, but they don't make it easy," says an oil equipment traffic executive. "I can't remember the last time I was called on by an airline air freight salesman."

The foreign flag airlines, which have always put more emphasis on the cargo business, scored significantly better than their U.S. counterparts. "Every good air freight rep I know ends up with a foreign carrier or foreign freight forwarder. That tells me something," one shipper observes.

The U.S. carriers suffering financial difficulty in the past year produced the lowest scores.

Airlines receiving the highest overall scores were **British Caledonian, KLM, SAS and Thai Airways.**

All-cargo airlines produced slightly better results than the combination air carriers, although the sales effectiveness scores again were below average. The carriers in this group that also carry "envelope" freight received higher scores than the heavy freight-only carriers.

Until recently, the surface express market had been dominated by **United Parcel Service**. Newer competitors in this group are beginning to receive shipper recognition and appreciation.

PASSENGER/CARGO AIRLINES

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.39**	**3.22**	**3.12**	**2.21**
Aer Lingus	**3.67**	3.00	3.00	**3.11**
Air Canada	**3.48**	3.04	2.96	1.80
Air France	3.20	3.10	3.11	2.41
Alaska Airlines	3.00	2.77	2.85	1.82
Alitalia	3.25	3.00	3.00	**3.00**
American Airlines	**3.36**	3.21	**3.12**	2.37
British Airways	**3.43**	**3.24**	**3.14**	2.65
British Caledonian	**4.00**	**3.69**	**3.38**	**3.27**
China Airlines	3.14	2.86	**3.29**	1.40
Continental Airlines	2.83	2.75	**3.33**	2.00
Delta Airlines	**3.68**	**3.48**	**3.14**	2.07
Eastern Airlines	2.95	2.98	2.98	1.72
Japan Airlines	**4.00**	**3.33**	**3.22**	2.75
KLM	**4.00**	**3.63**	**3.50**	**3.13**
Lufthansa	**4.14**	**3.83**	**3.50**	2.87
Northwest	**3.35**	3.18	**3.30**	1.70
Pan American	2.79	2.89	3.05	1.89
Piedmont	**3.75**	**3.57**	**3.17**	2.05
SAS Scandinavian Airlines	**3.83**	**3.17**	**3.67**	**3.20**
Southwest Airlines	3.14	2.57	2.86	2.00
Swissair Transport	**3.57**	3.14	2.86	**3.00**
TWA	**3.60**	**3.24**	2.96	2.19
Thai Airways	**4.50**	**4.50**	**4.00**	**3.00**
USAir	**3.65**	**3.45**	**3.30**	1.56
United Airlines	3.22	3.20	3.00	2.18

ALL CARGO AIRLINES/FORWARDERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.64**	**3.56**	**3.17**	**2.48**
Airborne Express	3.28	3.20	3.13	2.08
Burlington Air Express	3.52	3.49	**3.52**	2.91
CF Air Freight	3.11	3.24	3.04	2.96
DHL	**3.70**	3.32	2.99	2.52
Emery Worldwide	3.32	3.41	2.78	2.38
Federal Express	**4.39**	**4.17**	2.95	2.67
Flying Tigers	3.12	2.92	2.73	2.52
Nippon Cargo Airlines	3.38	3.00	**3.23**	**3.08**
United Parcel Service	**3.79**	**3.80**	**3.76**	1.98

QUEST FOR QUALITY

AIR & EXPRESS SERVICES

Shippers use air forwarders to get better service, more personal attention, greater convenience and lower consolidation rates. Based on the survey scores, however, this group has no better image than the underlying air carriers. Average scores for sales effectiveness were only slightly better than those for the air carriers, and pricing scores were lower. Unlike the air carrier group, the forwarders specializing in international shipments do not necessarily have higher scores than forwarders with a heavy concentration of domestic as well as international traffic. The high-scoring forwarders in this group, **Lynden Air Freight** and **Pilot Air Freight**, attest to this trend.

Sales scores for the group are surprisingly low.

"A lot of forwarder reps just take me to lunch," says Mark Zimmerman, director-international sales, Windsor Industries, Englewood, Colo. "Then they wonder why they don't get the business. It's because I'll only deal with a company that allows real control at the local level."

The air express companies providing services for envelope and small package freight find themselves in one of the most competitive business sectors in our industry. Here, the difference between good and bad service is measured in minutes rather than hours or days. Accordingly, the average service and convenience scores were very high. The average price scores indicate shippers perceive value, but the sales scores are low.

"I'm not sure these sales reps know who to call on at our company—the individual departments, the secretaries or the traffic department, but I rarely see them," says the TM for a film company.

The air express company receiving the highest overall scores was **Burlington Air Express.**

CONVENTIONAL FORWARDERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.33**	**3.17**	**3.11**	**2.79**
Air Express Int'l	**3.38**	3.11	3.09	2.60
Amerford Int'l	**3.42**	**3.26**	2.79	2.61
Associated Air Freight	2.74	2.67	2.33	2.18
Circle Air Freight	3.24	3.07	**3.20**	2.71
Kintetsu World Express	**3.77**	**3.28**	**3.20**	2.68
Lynden Air Freight	**3.55**	**3.27**	**3.36**	**3.09**
MSAS Cargo Int'l	**3.41**	**3.50**	**3.40**	2.95
Northern Air Freight	3.24	3.00	3.03	2.76
Panalpina	3.10	2.95	3.00	**3.00**
Pilot Air Freight	**3.45**	**3.21**	**3.31**	**3.31**
Profit Freight Systems	**3.55**	**3.48**	**3.48**	2.90
Schenkers	**3.36**	**3.50**	**3.18**	2.81
Seko	2.64	2.50	2.64	2.43
Skyway Systems	**4.10**	**3.70**	2.90	**3.22**
TNT Express	2.96	2.89	2.77	2.48

SURFACE EXPRESS CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.36**	**3.40**	**3.50**	**1.86**
Purolator	**3.60**	**3.46**	3.32	1.87
Roadway Package System	3.14	**3.60**	**3.78**	**3.24**
United Parcel Service	**3.83**	**3.85**	**3.87**	1.96
U.S. Postal Service	2.64	2.65	2.94	1.08

AIR EXPRESS (SMALL PACKAGE) CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.65**	**3.53**	**3.24**	**2.28**
Airborne Express	3.29	3.20	**3.27**	2.17
Burlington Air Express	**3.70**	**3.66**	**3.53**	**3.01**
DHL	**3.73**	3.34	2.98	2.62
Emery Worldwide	3.49	**3.57**	2.81	2.46
Federal Express	**4.44**	**4.21**	3.16	2.75
Purolator	3.20	3.19	3.12	1.93
TNT Skypak	3.36	3.17	3.09	2.57
United Parcel Service	**3.86**	**3.77**	**3.77**	2.04
U.S. Postal Service	2.86	2.69	3.09	1.24

WTC Air Freight was inadvertently left out of our poll this year due to the mistaken belief that it would be absorbed by its new sister company, Burlington Air Express. According to WTC, the air freight forwarder will continue to operate as a separate company. In the 1986 Quest for Quality survey, WTC was voted one of the outstanding transportation companies.

QUEST FOR QUALITY

METHODOLOGY

DISTRIBUTION's *Quest For Quality* survey is a rating of transportation companies by the shippers who use them.

The data was gathered from questionnaires for each mode of transportation that were bound into monthly issues of DISTRIBUTION. Each ballot included the name of major carriers of that mode or vendors of a particular service. Each ballot also included space for write-ins. The ballots were bound in as follows:

February—Motor Carriers
March—Water Carriers
April—Rail Carriers, Forwarders and Railcar Lessors
May—Air Freight Carriers, Forwarders, Air Express Companies and Surface Express Companies.

Each ballot was reviewed for genuineness. No photocopies of ballots were accepted, and only ballots on which the respondent identified himself and his company completely were counted. A total of 99 ballots were rejected for non-compliance. Any ballot that appeared to be filled out by a carrier or at the behest of a carrier was checked out. A total of 87 ballots turned out to be carrier-initiated and had to be rejected.

A total of 1,302 ballots qualified completely. Each of these ballots was coded according to state and standard industry code.

DISTRIBUTION asked respondents to rate the carriers and vendors they use in the following performance categories:

- *Service—transit times, routing and equipment.*
- *Convenience—billing, tracing, EDI capability, claims settlement.*
- *Price—rate levels and fairness, contract price levels and terms.*
- *Sales—salesmen's knowledge of their company's capabilities and the customer's needs.*

Shippers rated carriers they used regularly on a scale of 0 (unacceptable) to 5 (outstanding).

The ratings for each carrier appearing in this report were calculated by multiplying the number of votes by their point value. Total points were then divided by the number of shippers evaluating the carrier to find the average. For example, the rating for XYZ Company's service would be calculated as follows:

Range	*Respondents*	*Value*
0	*100*	*0*
1	*33*	*33*
2	*90*	*180*
3	*20*	*60*
4	*230*	*920*
5	[illegible]	*550*
	580	*1740*

Average: 3.000

Category averages are the sum of all carrier averages received (not just those reported) divided by the number of carriers in the section. This report only includes ratings for carriers that received enough votes to allow statistically measurable results.

Who is Number One?

No effort has been made to rank the carriers. A generalized ranking would be meaningless since each shipper has different priorities in terms of the importance of various performance categories. For example, some shippers may weigh service more heavily than convenience, and so on. Before any shipper can calculate which carrier has the "performance profile" it is looking for, the shipper has to establish a weighting for each performance category.

The simplest way to do this is to assign weighted point values to the four performance categories. For instance, take a total of 10 points and assign the appropriate weighting to service, price, convenience and sales effectiveness, based on the importance of each performance category to you.

If service is the most important, it might receive four points. If price is next most important, that might receive three points. Going down the scale in importance, convenience might get two points and sales effectiveness one point.

This weighting will vary from one shipper to the next. Also, the same shipper might well have different weightings for each transportation mode.

After determining the weightings, multiple them times the reported scores for the various carriers. The carrier with the highest total of points after four categories have been extended is the best carrier for you.

Here's an example. Suppose your weighted scale of carrier performance characteristics is four points for service, three for price, two for convenience and one for sales effectiveness. The extended scores and total points for the XYZ Company would be:

Reported Score	*Weight Factor*	*Extended Score*
XYZ CO.		
3.000	*4*	*12.000*
3.100	*3*	*9.300*
2.800	*2*	*5.600*
2.500	*1*	*2.500*
Total		*29.400*

A Caveat To Readers

In the past, certain carriers have attempted to use the ratings in our *Quest For Quality* survey as a competitive ranking system. We caution readers not to pay any attention to such manipulations of numbers and improper use of our survey. Such use is statistically meaningless. It also corrupts the intent of the survey.

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More shipper comments can be found on p. 112.

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CARRIER FINANCES

TRUCK, RAIL FINANCES: ON THE UP AND UP

It was tough not to make money in the trucking business last year. But success can be 'fleeting.' Consider the events that have unfolded so far in 1987.

By Kurt Hoffman, Contributing Editor

Last year was the year to make money in the trucking industry, says William Legg, trucking analyst with Alex Brown & Son of Baltimore.

"Last year, you had a confluence of events take place in the trucking industry, and virtually all of those events were positive," Legg explains. Fuel prices came down, while rates went up with a couple of major rate increases.

Add to that a couple of major business failures, like Hall's Motor Transit and McLean Trucking, and you get an environment ripe for profitability. "If you couldn't make money last year, then you have a problem," Legg points out.

Yellow Freight, Consolidated Freightways, Carolina Freight and Arkansas Best were among those carriers to rack up impressive performances. The big winners on the LTL side were the companies that successfully and aggressively expanded, taking advantage of the benefits of consolidation as well as the lower starting wage levels for new hires.

But some carriers didn't make money, and about a third of the Interstate Commerce Commission's Top 100 Carriers experienced increases in their operating ratios.

On the truckload side, several carriers closed out the year with operating ratios in the 70s. Low fuel prices were a primary factor.

"Truckload carriers are about twice as sensitive to the price of fuel as are their LTL counterparts," Legg explains. Typical truckload carriers using company equipment "probably were able to shave two or three points off of their operating ratios on the fuel side alone." Business looks good for the truckload carriers. Many publicly held truckload carriers showed revenue increases of more than 20 percent, largely due to conversion of private fleet freight.

But most truckload operators will sacrifice a good chunk of their fuel savings, if not all of it, this year. Fuel prices already are back up, and rates are lower. "Operating margins are now up two or three points, fairly in line with what they were in 1985," says Legg.

As for 1987, fuel will be a critical factor to watch, although prices seem to have stabilized at a level about 15 percent higher than just a few months ago. Other factors to watch for in the truckload segment during 1987 include a possible driver shortage that could drive up labor costs. Also, the ability to expand without having to resort to excessive price-cutting will help determine profitability for some truckload carriers.

LTL freight, however, is somewhat flat. Roadway, CF and Yellow all experienced substantial decreases in operating margins in the first two quarters of 1987.

In today's environment, there is a large, positive benefit to scale, says Legg. "It's the economics of

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KEY PERFORMERS—TRUCKLINES

OPERATING REVENUE

Carrier	$ Million
Yellow Freight System	1,619.2
Roadway Express, Inc.	1,499.2
Consolidated Freightways	1,467.3
North American Van Lines	744.9
P-I-E Nationwide, Inc.	660.0
Overnite Transportation	529.7
ABF Freight System	500.1
Carolina Freight Carriers	474.0
ANR Freight System, Inc.	397.4
United Van Lines, Inc.	394.2
Allied Van Lines, Inc.	376.9
Smith's Transfer Corp.	363.6
Transcon Lines	343.6
Preston Trucking Co.	320.6
Mayflower Transit	312.0

KEY PERFORMERS – TRUCKLINES

HIGHEST OPERATING RATIOS

Carrier	Operating Ratio
Overland Express, Inc.	112.0
Mistletoe Express Service	111.8
Red Arrow Freight Lines	104.1
Merchants Fast Motor Lines	103.8
ICC Corp.	103.6
TNT Pilot, Inc.	102.5
CW Transport, Inc.	100.4
Melton Truck Lines, Inc.	100.4
Thurston Motor Lines	100.3
ANR Freight System, Inc.	99.9
Southwestern Motor Transport	99.6
Lyons Transportation Lines	99.5
North Penn Transfer, Inc.	99.3
Hyman Freightways	99.2
Smith's Transfer Corp.	99.2

LOWEST OPERATING RATIOS

Carrier	Operating Ratio
J.B. Hunt	77.1
Estes Express Lines	80.7
New Penn Motor Express	81.8
Overnite Transportation	84.0
A-P-A Transport	86.6
Wilson Trucking Corp.	86.6
NW Transport Service	87.2
Holland Motor Express	87.4
AAA Cooper Transportation	87.9
Burnham Service Co., Inc.	88.0
Southeastern Freight Lines	88.0
SAIA Motor Freight Line	88.4
DSI Transports, Inc.	89.5
Red Star Express Lines	90.3
Roadway Express, Inc.	90.3
St. Johnsbury Trucking	90.3

HOUSEHOLD GOODS CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Aero Mayflower[7]	1986	298.95	9.10	4.75	0.66	97.0	10.62
	1985	291.83	13.19	7.38	0.63	95.9	19.74
Allied Van Lines	1986	376.91	(0.34)	3.66	0.62	100.1	11.32
	1985	370.39	0.84	4.75	0.62	99.8	16.66
American Red Ball[7]	1986	25.64	0.44	0.45	0.05	98.3	33.58
	1985	24.03	0.44	0.48	0.04	98.2	42.05
Paul Arpin Van Lines	1986	28.27	1.40	0.89	0.05	95.0	32.30
	1985	24.11	0.99	0.62	0.04	95.9	26.60
Atlas Van Lines[7]	1986	179.85	12.04	0.33	0.28	93.3	-0-
	1985	162.84	8.69	(1.86)	0.26	94.7	-0-
Bekins Van Lines[7]	1986	197.55	1.98	1.40	0.29	99.0	4.30
	1985	199.74	2.21	1.48	0.32	98.9	4.74
Burnham Service Co.	1986	89.49	10.72	4.84	0.18	88.0	43.30
	1985	88.09	8.81	3.93	0.20	90.0	40.68
Four Winds Van Lines[7]	1986	14.29	(1.84)	(1.35)	0.02	112.9	-0-
	1985	35.52	(0.71)	(0.43)	0.04	102.0	-0-
Global Van Lines[7]	1986	46.21	(0.58)	(3.92)	0.11	101.3	-0-
	1985	66.34	0.26	0.22	0.16	99.6	2.16
Graebel Van Lines	1986	50.16	2.96	1.42	0.06	94.1	38.65
	1985	40.57	3.07	1.44	0.04	92.4	96.46
Interstate Van Lines	1986	15.44	0.61	0.76	0.03	96.0	25.23
	1985	14.68	0.63	1.00	0.02	95.7	41.70
National Van Lines	1986	22.59	0.44	0.47	0.04	98.0	91.47
	1985	18.03	0.12	0.26	0.04	99.3	107.76
North American Van Lines[6]	1986	458.02	16.50	23.49	0.68	96.4	15.09
	1985	422.82	15.41	24.62	0.68	96.4	18.10
United Van Lines[7]	1986	375.70	2.58	2.40	0.69	99.3	8.38
	1985	351.13	2.87	2.14	0.67	99.2	8.63
Wheaton Van Lines	1986	40.66	2.40	1.72	0.06	94.1	11.26
	1985	39.61	2.20	1.66	0.06	94.5	11.78

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[1] Net Carrier Operating Income – Difference between carrier operating revenues and carrier operating expenses.

[2] Net Income – After including fixed charges, non-operating income, income taxes, unusual of infrequent items, earnings attributable to discontinued segments, extraordinary items, and cumulative effect of changes in accounting principles, but before extraordinary charges for write-down of operating rights and extraordinary credits for the tax effect of such write-downs.

[3] Revenue Tons Hauled reflect common and contract carrier service.

[4] Operating Ratio – Ratio of operating expenses to operating revenues.

[5] Return on Equity – Ratio of net income to shareholders' equity less tangible property at end of previous calendar year. The symbol -0- indicates a deficit in net income and/or shareholders' equity.

[6] North American Van Lines' revenues increased in the year 1986 compared to the year 1985, due in large part to a change in reporting periods, to four 13-week periods in 1986 from 12 monthly periods in 1985.

[7] Operating revenues, net carrier operating income, and operating ration for Mayflower Transit Co., Inc., American Red Ball Transit, Atlas Van Lines, Inc., Bekins Van Lines Co., Four Winds Van Lines, Inc., Global Van Lines, Inc., and United Van Lines, Inc. as shown above, reflect household goods operations only, but revenue tons hauled, net income, and return on equity represent the results from all their operations, including the transportation of general freight and household goods as well as income from household goods services (packing, crating, storage, etc.).

Source: Interstate Commerce Commission

CARRIER FINANCES

MAJOR MOTOR CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME^1 ($ millions)	NET INCOME^2 ($ millions)	REVENUE TONS HAULED^3 (millions)	OPERATING RATIO^4 (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)^5
AAA Cooper Transportation	1986	77.82	9.39	5.07	0.65	87.9	24.57
	1985	71.96	7.74	4.08	0.63	89.2	25.25
ABF Freight System	1986	500.15	29.35	11.50	2.23	94.1	55.12
	1985	418.96	18.57	7.96	1.89	95.6	54.14
A-P-A Transport Corp.	1986	108.72	14.58	6.35	0.50	86.6	26.47
	1985	98.67	17.12	8.44	0.46	82.7	50.93
ANR Freight System	1986	397.44	0.23	(0.44)	2.73	99.9	-0-
	1985	417.76	(14.62)	(9.95)	3.39	103.5	-0-
Advance Transportation	1986	67.86	2.99	1.54	0.60	95.6	41.52
	1985	67.19	1.49	0.31	0.65	97.8	11.05
Aero Mayflower	1986	311.95	8.45	4.75	0.66	97.3	10.62
	1985	302.80	12.45	7.38	0.63	95.9	19.74
Allied Van Lines	1986	376.91	(0.34)	3.66	0.62	100.1	11.32
	1985	370.39	0.84	4.75	0.62	99.8	16.66
Alterman Transport	1986	52.05	0.83	0.22	0.46	98.4	1.34
	1985	51.23	1.12	0.27	0.46	97.8	1.67
American Freight System	1986	300.57	6.71	4.06	1.77	97.8	14.68
	1985	302.22	3.96	2.79	1.72	98.7	6.85
Anderson Trucking	1986	71.03	2.78	1.34	0.96	96.1	12.60
	1985	55.90	2.52	2.04	0.82	95.5	22.99
Atlas Van Lines	1986	179.85	11.86	0.33	0.28	93.4	-0-
	1985	162.99	8.73	(1.86)	0.26	94.6	-0-
Auto Convoy	1986	68.20	1.11	0.09	1.32	98.4	5.34
	1985	64.75	0.15	(0.87)	1.37	99.8	-0-
Bekins Van Lines	1986	197.55	1.98	1.40	0.29	99.0	4.30
	1985	202.30	1.55	1.48	0.32	99.2	4.74
Bowman Transportation	1986	179.78	5.02	1.81	1.89	97.2	3.67
	1985	166.42	0.28	0.73	1.69	99.8	1.40
Brown Transport	1986	189.75	9.99	5.81	2.43	94.7	82.28
	1985	182.15	3.32	(1.25)	2.33	98.2	-0-
Burnham Service Co.	1986	89.49	10.72	4.84	0.18	88.0	43.30
	1985	88.09	8.81	3.93	0.20	90.0	40.68
CW Transport	1986	117.09	(0.49)	0.13	0.95	100.4	0.41
	1985	125.04	0.43	0.34	1.14	99.7	1.11
Carolina Freight	1986	474.03	35.49	17.48	2.77	92.5	25.11
	1985	411.91	30.25	14.99	2.34	92.7	26.23
Carretta Trucking	1986	56.51	3.82	1.64	1.92	93.2	17.70
	1985	53.96	4.27	1.56	1.77	92.1	19.62
Cassens Transport	1986	67.70	3.00	2.02	0.82	95.6	76.71
	1985	65.80	0.30	(0.12)	0.66	99.6	-0-
Central Freight	1986	195.81	8.41	4.59	2.39	95.7	5.61
	1985	193.81	4.80	6.50	2.40	97.5	8.38
Central Transport	1986	244.01	10.64	7.30	4.24	95.6	38.20
	1985	245.12	11.30	5.60	5.30	95.4	30.96
Chemical Leaman	1986	185.30	8.36	3.29	6.14	95.5	10.84
	1985	161.16	4.95	1.76	5.45	96.9	6.08
Churchill Truck Lines	1986	97.53	5.12	3.20	0.57	94.8	20.46
	1985	90.13	3.44	2.13	0.52	96.2	15.41
Commercial Carriers	1986	182.94	13.49	6.87	3.11	92.6	21.99
	1985	176.26	10.12	4.53	2.94	94.3	16.22
Consolidated Freightways	1986	1,467.33	111.22	60.77	5.60	92.4	15.82
	1985	1,329.57	93.74	57.13	4.98	92.9	13.46
Contract Freighters	1986	73.76	6.92	4.40	1.22	90.6	117.88
	1985	65.82	3.72	2.19	1.22	94.3	63.47
Convoy Company	1986	61.93	3.39	1.86	0.68	94.5	15.22
	1985	50.43	3.29	2.03	0.59	93.5	39.54
Jack Cooper Transport	1986	103.18	4.28	2.82	1.51	95.9	13.99
	1985	120.85	9.24	2.38	1.67	92.4	12.03
Crete Carrier Corp.	1986	80.30	3.21	2.55	1.47	96.0	14.86
	1985	83.09	3.52	2.77	1.46	95.8	19.29
DSI Transports	1986	51.22	5.39	2.01	2.62	89.5	15.95
	1985	48.26	4.98	1.37	2.47	89.7	12.24
Daily Express	1986	53.53	2.63	3.66	0.68	95.1	26.58
	1985	54.05	2.83	7.22	0.89	94.8	190.86
Dallas & Mavis	1986	42.35	1.67	0.66	0.53	96.1	6.03
	1985	52.07	1.97	0.98	0.60	96.2	9.80
Deaton	1986	53.15	4.36	3.33	1.62	91.6	18.76
	1985	51.91	4.51	3.58	1.29	91.3	22.30
E & L Transport	1986	93.19	1.85	0.94	1.12	98.0	14.16
	1985	86.28	2.61	1.34	0.92	97.0	30.02
Estes Express	1986	72.66	14.02	8.28	.0.79	80.7	38.13
	1985	64.50	9.81	5.79	0.76	84.8	31.08
FFE Transportation	1986	90.07	1.49	0.66	0.96	98.3	9.31
	1985	86.11	(0.71)	(0.43)	0.93	100.8	-0-
Fleet Transport	1986	55.15	2.13	0.80	6.06	96.1	11.50
	1985	51.72	(0.91)	(1.79)	5.42	101.8	-0-
G. I. Trucking	1986	54.81	0.73	(0.02)	0.30	98.7	-0-
	1985	49.60	0.71	0.14	0.25	96.6	1.12
Global Van Lines	1986	52.74	(0.24)	(3.92)	0.11	100.5	-0-
	1985	72.43	0.45	0.22	0.16	99.4	2.16
Groendyke Transportation	1986	60.13	1.66	0.89	3.47	97.2	6.48
	1985	61.71	1.08	0.45	3.61	98.2	3.36
Holland Motor Express	1986	124.13	15.63	7.29	1.05	87.4	22.50
	1985	106.64	12.43	7.21	0.93	88.3	25.10
Holmes Transportation	1986	61.32	0.60	0.57	0.45	99.0	4.19
	1985	59.35	0.66	0.53	0.48	98.9	4.08
J. B. Hunt Transport	1986	203.79	46.74	24.74	2.74	77.1	58.85
	1985	131.48	26.51	16.31	1.84	79.8	59.47
Hyman Freightways	1986	61.89	0.50	0.16	0.49	99.2	3.87
	1985	60.21	0.84	0.57	0.47	98.6	16.93
ICC Corp.	1986	131.02	(4.70)	(3.92)	1.45	103.6	-0-
	1985	131.34	(2.05)	(1.29)	1.34	101.6	-0-
Jones Motor Co.	1986	83.27	1.53	1.72	1.64	98.2	30.59
	1985	98.35	1.88	2.02	1.92	98.1	56.18
Jones Transfer	1986	70.81	1.25	0.23	1.34	98.2	1.83
	1985	66.67	1.87	0.48	1.42	97.2	4.10
Jones Truck Lines	1986	176.20	13.22	6.21	1.16	92.5	11.37
	1985	166.65	10.13	5.43	1.14	93.9	10.40
Kenosha Auto Transport	1986	55.37	1.39	0.70	0.62	97.5	8.05
	1985	56.52	(0.65)	0.11	0.58	101.1	1.29
Lyons Transportation	1986	60.83	0.30	0.26	0.40	99.5	2.11
	1985	55.75	0.30	0.22	0.39	99.5	1.80
Matlack	1986	203.27	5.51	0.11	8.00	97.3	0.36
	1985	200.24	(3.31)	(5.11)	7.83	101.7	-0-
May Trucking	1986	44.27	1.88	1.66	0.68	95.8	44.35
	1985	43.97	0.17	0.42	0.64	99.6	12.28
Melton Truck Lines	1986	52.53	(0.19)	0.01	1.20	100.4	0.08
	1985	53.27	0.17	0.66	1.25	99.7	5.84

CARRIER FINANCES

MAJOR MOTOR CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Mercer Transportation	1986	57.07	2.58	2.52	1.01	95.5	54.58
	1985	60.01	1.92	1.02	1.06	96.8	318.50
Merchants Fast Motor	1986	79.56	(3.02)	(1.63)	0.97	103.8	-0-
	1985	92.69	1.14	0.28	0.97	98.8	2.58
Mid West Coast Transport	1986	69.22	2.46	1.42	0.77	96.4	19.32
	1985	66.89	2.68	1.50	0.74	96.0	24.68
Miller Transporters	1986	63.53	3.75	2.14	3.73	94.1	31.66
	1985	58.45	1.22	0.40	3.75	97.9	6.00
Milne Truck Lines	1986	125.8	3.91	1.06	0.74	96.9	4.88
	1985	99.66	0.72	(0.13)	0.61	99.3	-0-
Mistletoe Express	1986	50.80	(5.98)	(4.97)	0.21	111.8	-0-
	1985	70.03	(2.71)	1.22	0.27	103.9	15.39
Morgan Drive Away, Inc.	1986	55.00	0.54	0.42	0.65	99.0	6.55
	1985	53.005	0.10	0.35	0.65	99.8	5.84
The Motor Convoy, Inc.	1986	119.56	1.84	1.09	4.41	98.5	19.37
	1985	104.39	1.03	0.38	3.85	99.0	8.27
National Carriers	1986	62.03	2.78	1.90	1.00	95.5	9.20
	1985	52.71	2.84	2.14	0.85	94.6	11.41
National Freight	1986	131.65	6.28	3.53	0.74	95.2	18.85
	1985	103.39	1.34	6.93	1.02	98.7	50.16
New Penn Motor Express	1986	84.77	15.41	8.65	0.64	81.8	28.63
	1985	74.65	12.76	7.47	0.60	82.9	22.92
North American Van Lines	1986	744.92	21.92	23.49	3.59	97.1	15.09
	1985	694.35	21.47	24.62	3.16	96.9	18.10
North Penn Transfer	1986	51.67	0.36	0.63	0.43	99.3	8.04
	1985	56.19	(0.62)	(1.17)	0.32	101.1	-0-
Northwest Transport	1986	110.42	14.14	8.02	0.53	87.2	24.47
	1985	95.77	12.94	7.61	0.45	86.5	30.27
Nu-Car Carriers	1986	133.72	7.65	2.14	2.48	94.3	19.48
	1985	116.61	5.77	1.77	2.15	95.1	19.73
Old Dominion Freight Lines	1986	104.52	1.50	(1.49)	0.98	98.6	-0-
	1985	112.79	0.78	(2.69)	1.38	99.3	-0-
Overland Express	1986	99.39	(11.91)	(16.12)	1.89	112.0	-0-
	1985	96.16	2.57	(2.77)	1.52	97.3	-0-
Overnite Transportation	1986	529.74	84.66	43.74	3.73	84.0	20.47
	1985	469.70	71.31	38.91	3.46	84.8	21.49
PIE Nationwide	1986	660.02	6.15	6.17	2.53	99.1	28.87
	1985	673.68	(83.10)	(94.77)	2.68	112.3	-0-
Pacific Motor Trucking	1986	88.80	3.59	3.07	1.00	96.0	-0-
	1985	95.46	0.74	0.49	1.04	99.2	-0-
Pre-Fab Transit	1986	47.30	1.41	0.78	0.87	97.0	13.91
	1985	60.29	0.93	0.45	0.86	98.5	8.63
Preston Trucking	1986	320.63	10.69	5.20	2.30	96.7	5.38
	1985	280.53	4.63	3.50	2.20	98.3	3.61
Red Arrow Freight Lines	1986	52.54	(2.15)	(1.52)	0.65	104.1	-0-
	1985	54.90	(1.77)	(1.09)	0.72	103.2	-0-
Red Star Express	1986	111.56	10.82	8.19	0.60	90.3	23.00
	1985	112.47	12.10	10.71	0.63	89.2	35.23
Refiners Transport	1986	58.29	4.03	1.91	7.14	93.1	14.84
	1985	46.75	1.82	0.43	5.70	96.1	3.45
Roadway Express	1986	1,499.18	145.08	96.61	5.79	90.3	14.67
	1985	1,428.75	128.31	92.30	5.58	91.0	15.22
Saia Motor Freight	1986	55.18	6.42	6.85	0.65	88.4	27.92
	1985	56.99	6.69	7.04	0.62	88.3	39.36
St. Johnsbury Trucking	1986	260.17	25.26	10.49	1.66	90.3	24.84
	1985	227.81	17.15	7.95	1.49	92.5	21.74
Schwerman Trucking	1986	45.90	2.45	1.72	3.29	94.7	65.95
	1985	49.57	1.41	0.20	3.93	97.1	8.48
Willis Shaw Frozen Express	1986	48.49	4.57	2.33	0.51	90.6	28.41
	1985	49.06	4.44	2.47	0.52	90.9	44.02
Smith's Transfer	1986	363.62	2.79	(4.33)	2.01	99.2	-0-
	1985	369.83	(8.16)	(5.54)	2.25	102.2	-0-
Southeastern Freight	1986	88.95	10.66	10.18	0.93	88.0	58.25
	1985	77.09	8.12	7.68	0.85	89.5	55.76
Southwestern Motor Transport	1986	42.39	0.16	0.11	0.40	99.6	0.67
	1985	53.44	4.11	2.53	0.44	92.3	16.55
Stoops Express	1986	66.19	3.31	2.15	0.82	95.0	75.11
	1985	56.99	3.44	0.99	0.64	94.0	3.54
TNT Pilot	1986	181.12	(4.57)	(7.43)	1.16	102.5	-0-
	1985	180.60	(12.40)	(14.29)	1.15	105.9	-0-
Thurston Motor Lines	1986	143.70	(0.37)	(1.38)	1.31	100.3	-0-
	1985	136.57	(1.72)	(2.58)	1.27	101.3	-0-
Transcon Lines	1986	343.55	10.62	2.32	1.82	96.9	5.72
	1985	323.50	9.36	0.64	1.73	97.1	1.60
Transus	1986	96.51	1.65	1.76	0.87	98.3	6.98
	1985	90.24	1.34	3.48	0.75	98.5	13.39
Tri-State Motor Transit	1986	115.74	5.417	4.43	0.89	95.3	23.27
	1985	114.54	(0.44)	(1.21)	0.94	100.4	-0-
United Van Lines	1986	394.23	1.36	2.40	0.69	99.7	8.38
	1985	367.94	3.00	2.14	0.67	99.2	8.63
Viking Freight	1986	170.89	10.47	4.70	0.85	93.9	11.85
	1985	130.32	7.19	3.16	0.67	94.5	8.72
Willig Freight	1986	62.62	4.47	2.84	0.50	92.9	23.93
	1985	54.57	2.73	1.00	0.47	95.0	8.54
Yellow Freight	1986	1,619.18	136.89	74.43	5.97	91.5	23.75
	1985	1,407.09	97.33	56.00	5.09	93.1	20.90

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[1] Net Carrier Operating Income – Difference between carrier operating revenues and carrier operating expenses.

[2] Net Income – After including fixed charges, non-operating income, income taxes, unusual of infrequent items, earnings attributable to discontinued segments, extraordinary items, and cumulative effect of changes in accounting principles, but before extraordinary charges for write-down of operating rights and extraordinary credits for the tax effect of such write-downs.

[3] Revenue Tons Hauled reflect common and contract carrier service.

[4] Operating Ratio – Ratio of operating expenses to operating revenues.

[5] Return on Equity – Ratio of net income to shareholders' equity less tangible property at end of previous calendar year. The symbol -0- indicates a deficit in net income and/or shareholders' equity.

Source: Interstate Commerce Commission

CLASS I FREIGHT RAILROADS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	INCOME BEFORE EXTRAORDINARY ITEMS[2] ($ millions)	NET INCOME[3] (millions)	REVENUE TON-MILES[4] (millions)	RETURN ON NET INVESTMENT (%)[5]
Atchison, Topeka	1986	1,951.7	(51.9)	(62.7)	(62.7)	67.14	-0-
& Santa Fe	1985	2,144.4	119.7	125.8	125.8	69.09	4.38
Boston	1986	85.2	(6.27)	3.57	3.57	1.65	-0-
& Maine	1985	115.7	1.4	4.3	4.3	2.30	2.09
Burlington	1986	3,733.0	63.9	81.1	(254.7)	188.2	1.40
Northern[6]	1985	4,040.5	458.3	488.5	488.5	184.09	10.53
CSX	1986	4,528.8	342.9	329.3	329.3	132.81	5.55
Transportation[5]	1985	4.772.6	(4.62)	(73.8)	(73.8)	134.05	-0-
Chicago &	1986	823.6	34.5	36.0	36.0	26.98	3.34
Northwestern	1985	823.7	4.4	(29.5)	(26.1)	24.28	0.44
Chicago, Milwaukee,	1986	–	–	–	–	–	–
& St. Paul Pacific[7]	1985	49.0	(8.31)	(9.11)	(9.11)	–	-0-
Conrail	1986	3,088.1	279.7	315.7	431.1	74.61	5.37
	1985	3,153.7	309.1	360.9	441.8	74.13	6.23
Delaware	1986	80.3	(11.7)	(13.4)	(13.4)	2.63	-0-
& Hudson	1985	109.6	(3.1)	(3.6)	(3.6)	3.65	-0-
Denver & Rio	1986	285.3	17.9	22.7	22.7	11.13	4.43
Grande Western	1985	325.5	23.5	24.1	24.1	11.64	5.44
Florida	1986	121.2	11.4	25.4	25.4	3.65	7.06
East Coast	1985	117.8	9.3	23.6	23.6	3.23	5.20
Grand Trunk	1986	323.0	(26.5)	(16.4)	(16.4)	5.12	-0-
Western	1985	342.9	5.3	1.4	6.1	4.98	1.59
Illinois	1986	679.5	(189.8)	(171.7)	(171.7)	18.92	-0-
Central Gulf	1985	880.5	33.3	25.7	30.0	25.75	2.04
Kansas City	1986	299.9	0.6	(3.0)	(3.0)	11.37	0.17
Southern	1985	316.7	31.4	23.8	23.8	11.62	9.21
Missouri-Kansas-	1986	232.7	5.3	6.8	24.7	8.10	1.82
Texas	1985	263.1	7.3	(5.7)	(5.7)	8.92	2.21
Norfolk &	1986	1,639.9	127.5	290.1	290.1	44.28	6.81
Western	1985	1,720.9	170.4	281.3	281.3	44.17	9.03
St. Louis	1986	360.6	(34.7)	(26.5)	(26.5)	12.47	-0-
Southwestern	1985	390.1	17.3	21.2	21.2	13.47	3.13
Soo Line[7]	1986	606.3	(28.2)	(35.0)	(35.0)	19.50	-0-
	1985	600.4	13.1	(2.1)	(2.1)	18.34	4.03
Southern	1986	1,909.0	(292.1)	(254.3)	(254.3)	62.53	-0-
Pacific	1985	2,053.9	18.3	117.0	117.0	63.50	0.68
Southern	1986	1,678.3	218.8	217.2	217.2	47.26	8.36
Railway	1985	1,704.3	210.2	207.7	207.7	47.39	9.24
Union	1986	3,766.9	50.9	4.7	4.7	135.80	1.30
Pacific[8]	1985	3,728.9	298.9	258.2	258.2	130.84	8.03

[1] Net Operating Income – Difference between operating revenues and the total of railway operating expenses, railway tax accruals and net equipment and joint facility rents.

[2] Income Before Extraordinary Items – Net income after including fixed charges, nonoperating income, unusual or infrequent items and earnings attributable to discontinued segments but before extraordinary items and cumulative effect of changes in accounting principles.

[3] Net Income – Net income after extraordinary items and cumulative effect of changes in accounting principles.

[4] Return on Net Investment – Ratio of railway operating income to net investment in railway property used in transportation services at end of previous calendar year. The latter includes an allowance for working capital based on the ICC's Rail Form A formula. Accumulated deferred income tax reserves have been subracted from the net investment base in accordance with the modification approved by the Commission in Ex Parte No. 393 (Sub No. 1), "Standards for Railroad Revenue Adequacy," served December 31, 1986. If net investment data as of the end of each quarter were available, returns on investment would be computed using an average of the net investment at the beginning and at the end of the respective twelve-month periods. However, net investment data is generally only available at the end of the calendar year; a substantial portion of this data is derived from annual reports (Form R-1) of Class I line-haul railroads which are required to be filed with the Commission by March 31 of the following year. Thus, the net investment data used for this report which represent the latest available end-of-calendar-year data are not averaged in order to assure that net railway operating income is more closely equated with the railroad assets generating this income. The symbol -0- for return on net investment indicates a deficit net railway operating income.

[5] Data subsequent to January 1, 1986 filed by CSX Transportation reflect the combined results of operations of the consolidated data of Baltimore and Ohio Railroad Company and the Chesapeake and Ohio Railway Company and the consolidated data of Seaboard System Railroad, Inc. Previously, separate financial statements were filed by each of these three railroads. For purposes of comparability, amounts shown above for periods prior to January 1, 1986 represent combined consolidated data for these three

[6] The large difference between Burlington Northern Railroad Company's net income before extraordinary items and net income for the 12 months ending December 31, 1986 is attributable to a $335.8 million charge representing the cumulative effect of a change in accounting principles. This change represents a retroactive adjustment effective January 1, 1986, of property acquisitions of prior periods to reflect a changeover to the unit method of depreciation from the composite method of depreciation. This change in method is subject to Bureau of Accounts' approval.

[7] The Soo Line Railroad Company acquired the railroad operations of the Chicago, Milwaukee, St. Paul and Pacific Railroad (Milwaukee) on February 19, 1985. Data shown above for Soo line for the 12 months ending December 31, 1986 reflect operations over the lines of the Milwaukee. Data shown above for Milwaukee for the 12 months ending December 31, 1985 reflect operations from January 1, 1985 to February 19, 1985.

[8] Data subsequent to January 1, 1986 filed by the Union Pacific Railroad Company reflect the combined results of operations of Union Pacific Railroad Company, Missouri Pacific Railroad Company, and Western Pacific Railroad Company and their subsidiaries. Previously, separate financial statements were filed by each of these three railroads. For purposes of comparability, amounts shown above for periods prior to January 1, 1986 represent combined data for these railroads, as restated by Union Pacific. Union Pacific, in its income statement for the year 1986, recorder $659.7 million of adjustments for severence pay and asset write-downs as an unusual or infrequent expense item. If these adjustments had increased operating expenses, Union Pacific's net railway operating income for the year 1986 would have been $50.9 million, instead of $710.6 million, as reported, according to the railroad's footnote disclosure. In order to provide uniformity and consistency with the reporting by other Class I railroads in 1985 and 1986 of similar costs associated with major restructuring programs, net operating income shown above for Union Pacific for the year 1986 has been adjusted to reflect these expense as operating expenses. The related tax benefits ($303.3 million) attributable to these expenses had already been recorded in the net operating income. Consequently, as shown in footnote 6 above, the net impact on Union Pacific's earnings from this adjustment for the year 1986 is $356.4 million (total costs of $659.7 million less related tax benefits of $303.3 million).

Source: Interstate Commerce Commission

Most truckload operators will sacrifice a good chunk of their fuel savings, if not all of it, this year. Fuel prices already are back up, and rates are lower.

density, and changes in market share will become progressively more important because there is very little growth in that market."

And until there is more consolidation—read *bankruptcies*—the ability to build market share without buying it will be a treasured skill.

For The Numbers, Let's Go To ATA

Here are some specifics from last year's mixed bag of results for the nation's major motor carriers.

While operating ratios generally took a drop, and mileage, tonnage and revenue yields rose for the industry at large, some shakeout survivors still struggled for profitability.

In a study performed by American Trucking Associations' Statistical Analysis Department, the 1986 financial results of 456 carriers—244 general freight carriers, 195 specialized carriers and 17 household goods moving companies—showed that volume for the group increased more than 3.1 percent last year to 308.09 million tons from 298.80 million tons in 1985.

Mileage was up 5.3 percent to 9.3 billion miles. Revenues rose nearly 6 percent to $22.06 billion. Operating income jumped by nearly 50 percent to $1.14 billion from $0.77 billion in 1985.

Profit margins for the ATA study group gained measurably to 2.85 percent, compared to 1985's 1.94 percent margin. Operating ratios for the group dropped to 94.86 from 96.31 in 1985. Still, 34 of the top 100 carriers reporting to the ICC had higher operating ratios in 1986.

On the expense side, operating costs increased 4.3 percent to $20.92 billion from $20.06 billion. While operating supplies and expenses, including fuel, dropped 12.6 percent, insurance expenses rose 27 percent. Depreciation and amortization expenses increased 8.9 percent, and salaries of officers and supervisors and other managers rose 9.5 percent.

General freight carriers as a group saw profit margins rise to 3.21 percent from 2.09 percent on revenue and tonnage gains of 7 percent and 2.9 percent respectively. Operating profits were up by more than 50 percent, and net income climbed 64.5 percent.

Operating ratios for general freight carriers on the average dropped to 94.1 from 95.84.

Despite a four point rise in operating ratio, A-P-A Transport remained in the mid-80s, in the company of Holland Motor Express, AAA Cooper, Wilson Trucking, and Northwest Transport Service. J.B. Hunt came in at 77.1, followed several points later by Estes Express Lines, Inc. at 80.7 and New Penn Motor Express at 81.8.

On the down side were Overland Express (112), Mistletoe Express (111.8), and Interstate Contract Carrier Corp. (103.6).

As an industry, household goods carriers saw a slight rise in operating ratios, from 97.35 to 97.58, due to a 4.2 percent rise in expenses. Revenues were up 4 percent, and tonnage climbed by more than 7 percent. But net income fell 15.1 percent to account for a slimmer profit margin of 1.66 percent compared to 1985's 2.03 percent.

Several name-brand carriers (Allied, Four Winds, Global) had operating ratios of greater than 100 for their household goods transportation operations, but these losses were offset by gains in other operations.

Among the movers, Burnham Van Services reported the lowest operating ratio (88) on operating revenues of $89.5 million.

Some analysts suggest that another bankruptcy of a major-sized firm—and there are some candidates—could put the brakes to an ongoing aggressive LTL discounting war led by giant Roadway. Other critical factors in 1987 for all corners of the trucking industry promise to include rising fuel expenses and soaring liability insurance costs.

Railroads Take Some Tough Steps

Stiff rate competition from truckers along major high-volume corridors, along with tax law changes and labor-related expenses, helped suppress profits on the nation's Class I freight railroads last year.

According to the Association of American Railroads, ordinary income dropped 16 percent last year, while revenue yield per ton-mile sank 6 percent, from $3.05 in 1985 to $2.87 last year.

Several carriers incurred one-time, high-dollar costs by "buying out" thousands of union workers. Analysts estimate that Burlington Northern, Santa Fe Southern Pacific and Union Pacific each wrote off at least $1 billion to reduce its work force. All told, rail labor has declined to roughly 295,000 from more than 500,000 in 1980.

Earnings also were eroded by retroactive provisions of the Tax Reform Act of 1986, which resulted in a loss of investment tax credits the railroads had anticipated.

Larger Class I railroads are selling off unprofitable and nonproductive track to regional and local operations. Many of these newcomers have non-union labor, while others, like Jack Haley's highly successful Chicago, Central & Pacific, have union workers and streamlined work rules.

Either way, the presence of these profitable and productive operations only makes more obvious the need for labor on the large Class Is to face up to the realities of the market while they still have some market share to save.

But rail labor had its leverage strengthened this year when the United States Supreme Court upheld secondary picketing rights for railroad employees. So look for continued efforts to negotiate, rather than force, compromises. ★

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PRIVATE FLEET COSTS DRIVING YOU TO THE BRINK?

Private fleet price tags continue to inch upward. How does your operation compare?

Though the researcher and the methodology have changed, the numbers coming out of the most recent Private Truck Council of America (PTCA) Private Fleet Cost Index leave little doubt that the cost of operating shipper-owned vehicles is continuing its upward trend, albeit moderately.

The Results

The 1986 PTCA Cost Index Survey reveals that:

- Tractor/trailer fleets cost an average of $1.38 per mile to operate. Straight truck and van fleets are substantially more expensive overall. They do, in fact, cost more than tractor/trailer fleets in each of the four areas of expense allocation identified by the survey—administrative, drivers, equipment maintenance, and taxes and licensing. The average cost of a straight truck/van fleet is $2.13 per mile.
- The greatest expense for tractor/trailer fleets is in the area of equipment maintenance. The survey also shows that the average age of private fleet power units increased 25 percent in the past year. Such a big increase cannot be entirely accounted for by assuming a statistical glitch, but would seem to indicate that shippers are trading off the greater initial investment in new equipment for

the greater cost of maintaining their existing equipment. This is borne out in that the expense of maintaining equipment in leased fleets is lower in both union and non-union shops than it is in owned.

At the same time, driver pay is still the most expensive item associated with straight truck/van fleet operations, as it is when the average for all types of fleets are calculated.

- Within the driver cost area, expenses are greatest for union drivers of company-owned straight truck/van fleets. Union drivers for company-owned truck fleets make an average of 15¢ per mile more than non-union drivers. For leased fleets the difference is nearly twice as much.

Index Shortcomings

The PTCA has been gathering statistics on the cost of operating private trucking fleets since 1981. Beginning that year, the management consulting firm of A.T. Kearny was employed to gather and analyze private fleet operating data from the shippers that made up the council. This annual survey provided private fleet operators with some benchmarks which were interesting, but admittedly of limited application.

Shippers who wanted more precise comparisons argued that averages told them little because dissimilar fleets were being lumped together. The biggest limitation, says PTCA Executive Vice President Richard Henderson, was that statistics were not broken out according to the nature of the product being shipped. "It's arguable that the differences between hauling furniture and hauling, for instance, electrical appliances are not that significant. But if one guy is shipping steel and another is moving potato chips, you have two entirely different operations."

Because such extremes as these were averaged together to produce numbers that reflected neither operation realistically, many shippers considered the PTCA's effort wasted.

While Henderson believes that much of the survey is still valid despite the wide variety of shippers that contribute to its averages, he has been aware of the need to expand its usefulness by addressing this objection to the Council's research.

A New Approach

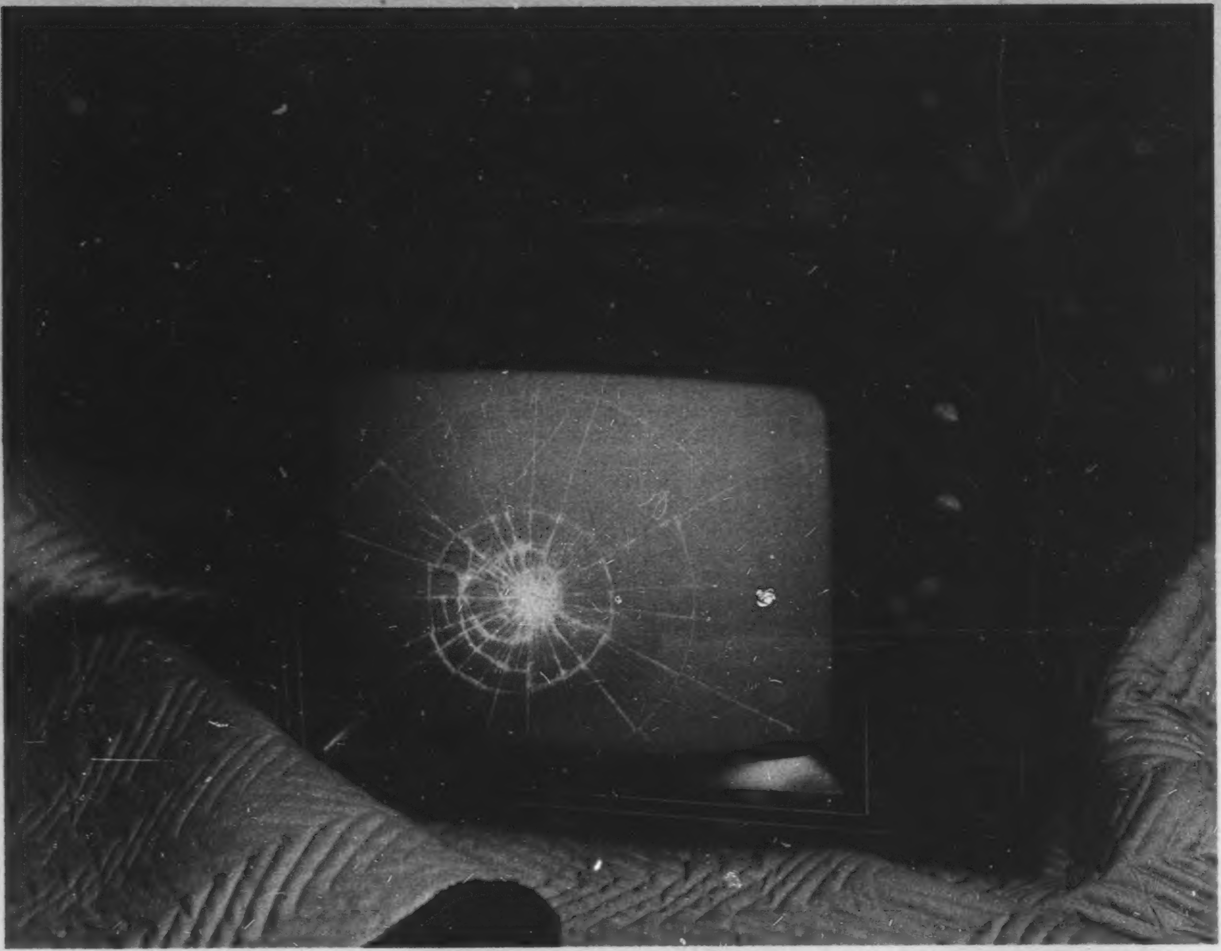
An effort to enhance the value of the survey began with the 1986 project. The Council decided to use Chilton Research Services (CRS) to conduct the survey, on the basis of its ability to reach a greater number of private fleet managers. "I would like to think the PTCA is a representative sample of all private fleets," Henderson says, "but realistically, I can't say that it is." Certainly, active members of major trade associations are often the elite of the industry, but using the Council members for a universe did more than exclude many modest-sized fleets from the cost index. In effect, it blocked out an entire class of operators. "Our previous surveys didn't include very many straight truck fleets at all," Henderson states. "There were so few in fact, that it was impossible to derive any meaningful numbers on straight trucks."

CRS was able to contact nearly 3,000 shippers, with a response rate of about 20 percent. Among the respondents were over 200 straight truck and van fleets. This represents a much broader base of information on which to develop an index. In Henderson's words, the survey is now a "true, scientific sampling of all private carriers. And the numbers are more verifiable than in the past."

But the '86 index did not quite achieve Henderson's ideal of what the survey should be. That will take a few more years, he believes. The intention of PTCA and CRS in '86 was to stratify the overall results by segregating the respondents into one of 12 different types of business: food products, metals, petroleum, etc. In this way, the steel and potato chip haulers would no longer be averaged together.

This goal wasn't achieved, not due to any shortcomings on the part of PTCA or CRS, but simply because of a statistical rule of thumb. After breaking the returns into groups, the number of respondents within each category was not quite sufficient to produce a statistically meaningful average. About 400 more responses would have enabled the breakouts to be calculated.

continued



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"We were so close, I asked Chilton if we couldn't just go ahead and do the breakouts based on the information we had," says Henderson, "but they insisted that in order to remain true to the study's integrity, it couldn't be done." So the critics will have their say for at least one more year, but Henderson has no doubt that the breakouts will be done in the future. Survey results will be shown to fleet managers who didn't respond to the survey this year to demonstrate that it would be worth their while to help achieve the necessary response rate.

The survey itself, Henderson reasons, is not an easy form to complete. It requires the fleet manager to go to other people and departments to get all the information he or she needs, and is likely to discourage some people from taking the time. As the usefulness and reputation of the index grows, Henderson believes, managers will be more willing to contribute and the response rate will grow.

Once the index grows to the point where industry breakouts will be statistically valid, most shippers should be satisfied that it provides at least a starting point for meaningful comparisons. Already, results are segregated into straight truck, tank, dry van, reefer, and flatbed trailer fleets; owned and leased equipment fleets, union and non-union drivers, and by fleet size.

Looking Back

Because of the difference in methodology, it is dangerous to interpret the significance of changes in this year's responses relative to previous years. Particularly because of the participation this year of substantial numbers of straight truck fleets, the average cost per mile, which often is glibly thrown about as the survey's bottom line, is surprisingly high. At a glance it might appear that the avarage cost per mile is up nearly 30 cents from one year ago, to a hard-to-justify $1.63. Nearly all of this increase, though, is due to the high costs associated with operating straight trucks and vans in urban environments where low mileages inflate the cost per mile.

continued

FLEET OPERATING COSTS

	Cost per Mile			
Cost Category	Total	Tractor/ Trailer	Straight Truck/Van	Mixed
General & Admin.	$0.19	$0.11	$0.32	$0.21
Drivers	0.71	0.60	0.94	0.62
Equipment	0.68	0.62	0.79	0.63
Taxes and Licensing	0.06	0.05	0.08	0.06
Total	1.63	1.38	2.13	1.52

Straight truck fleets are substantially more expensive than tractor/trailer fleets in every category. This is primarily a consequence of shorter trips and operations in urban environments. While the figures indicate a general rise in the cost of private fleet operations, the increase is not out of line with the trends of the overall economy. A slight increase was to be expected based on the results of previous years' studies.

PARTICIPATION IN AUTHORITIES AND LEASING OPTIONS

	Total	Tractor/ Trailer	Straight Truck/Van	Mixed
Intercorporate Hauling	24%	56%	4%	20%
Transportation Subsidiary	9	17	4	10
Single-Source Leasing	10	15	5	20
Trip Leasing	10	23	1	0
For-Hire Authority	19	37	6	14

Participation in single-source and trip leasing is still relatively limited, despite the hoopla that accompanied their introduction three years ago. Intercorporate hauling and supplemental for-hire authority are the preferred means of recovering private fleet costs.

FREIGHT COST PERCENTAGES

Mode	Inbound	Mode	Outbound
Private Fleet	46%	Private Fleet	70%
For-Hire Motor Carrier	43	For-Hire Motor Carrier	24
Rail	6	Other	4
Other	5	Rail	2

For-hire carriage still plays a large part in the inbound delivery of raw materials for many shippers operating private fleets.

Definitions of Fleet Operations:

Tractor/Trailer Fleet – The number of tractors is greater than or equal to 80 percent of the fleet's total vehicles.

Straight Truck/Van – The number of straight trucks/vans is greater than or equal to 80 percent of the fleet's total vehicles.

Mixed Fleet – All fleets which do not fit the definition of Tractor/Trailer or Straight Truck/Van fleet.

Owned Equipment – 80 percent or more of the fleet's power units are owned.

Leased Equipment – 80 percent or more of the fleet's power units are leased.

The average cost per mile of operating tractor/trailers is three cents higher than in '85, a largely insignificant difference in light of the change in methodology. It should perhaps be noted, though, that the three-cent-per-mile increase is exactly in step with the trend established throughout the previous four years, when Kearny conducted the study. In each of those years, the average increased by three cents over the previous year.

Looking Ahead

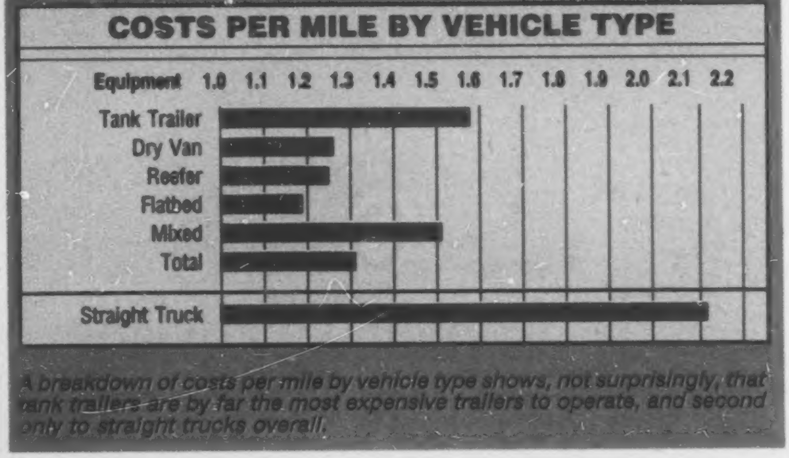
Henderson's impression, based on the PTCA index and a general feel of the industry, is that private fleets have been striving to cut costs by negotiating wage concessions with labor, lay-offs, and various other means of retrenchment. These measures have kept costs from escalating, and that has put fleets in a good light when they come under the scrutiny of management. This is fine for the short-term, but Henderson warns that such band-aid remedies "leave the same old machinery in place." They don't make fleets any more efficient, they just clothe chronic problems in some attractive numbers.

The time is coming, says Henderson, when more private fleets will have to start thinking about investing in newer and better equipment and in improved service. This may well mean higher per-mile costs, but, he says, "it may be worth it to pay more in some cases in return for better service. That's what private carriage is all about."

OPERATING STATISTICS

	Total	Tractor/ Trailer	Straight Truck/Van	Mixed
Total Miles Driven (thousands)	1,209,199	671,373	427,191	110,635
Avg. Miles/Trip	551	778	288	480
Total Number of:				
Tractors	10,299	7,174	1,359	1,766
Straight Trucks/Vans	18,905	121	17,772	1,012
Trailer/Tractor Ratio	2.3	2.5	–	1.9
Avg. Tractor Age (years)	5	4	–	6
Avg. Straight Truck Age (years)	7	–	6.5	7
Avg. Tractor MPG	7	–	7	7
Avg. Power Units/ Mechanic	13.3	6.1	17.8	8.4
Union/Non-Union Fleets	215/296	96/162	95/129	24/57
Leased/Owned Equip.	152/336	137/81	11/194	4/61

The numbers show a clear distinction between tractor/trailer and straight truck/van operations. As expected, tractor/trailer fleets log many more miles than the straight trucks, and are not left in service for quite so long. Straight truck fleets employ nearly three times the number of mechanics per vehicle, and exhibit a much greater preference for owning the vehicles they operate.


COSTS PER MILE BY VEHICLE TYPE

A breakdown of costs per mile by vehicle type shows, not surprisingly, that tank trailers are by far the most expensive trailers to operate, and second only to straight trucks overall.

When all is said and done about the limitations of averages and generalities, some of the most interesting results of the PTCA cost index can be found in the answers to those questions which are legitimate whatever the size of the fleet or the nature of the business. In particular, the statistics dealing with private fleet participation in such activities as trip and single-source leasing, or intercorporate hauling and other revenue-generating authorities, are very revealing.

The number of fleets currently engaged in such operations is small, although Henderson points out that the length of the legal debate surrounding some of the authorities has slowed the rate at which fleets are taking advantage of them.

But while Henderson says the current use of these options is about what he would have expected in 1986, he believes that the number will have to grow in the future if private carriage is to remain a viable alternative to for-hire trucking.

He cites the example of an upstate New York shipper which he says has proven wrong the idea that private fleets cannot operate as efficiently as common carriers. By taking advantage of every available tool, from wage concessions to a variety of supplemental authorities, this fleet, says Henderson, is operating at a level of efficiency which any for-hire carrier would be hard-pressed to match.

Henderson admits this fleet benefitted from good fortune which not all shippers will be able to emulate. But in light of the cost comparisons being made these days between private and common carriage, the survival of some private fleets may depend on it. ★

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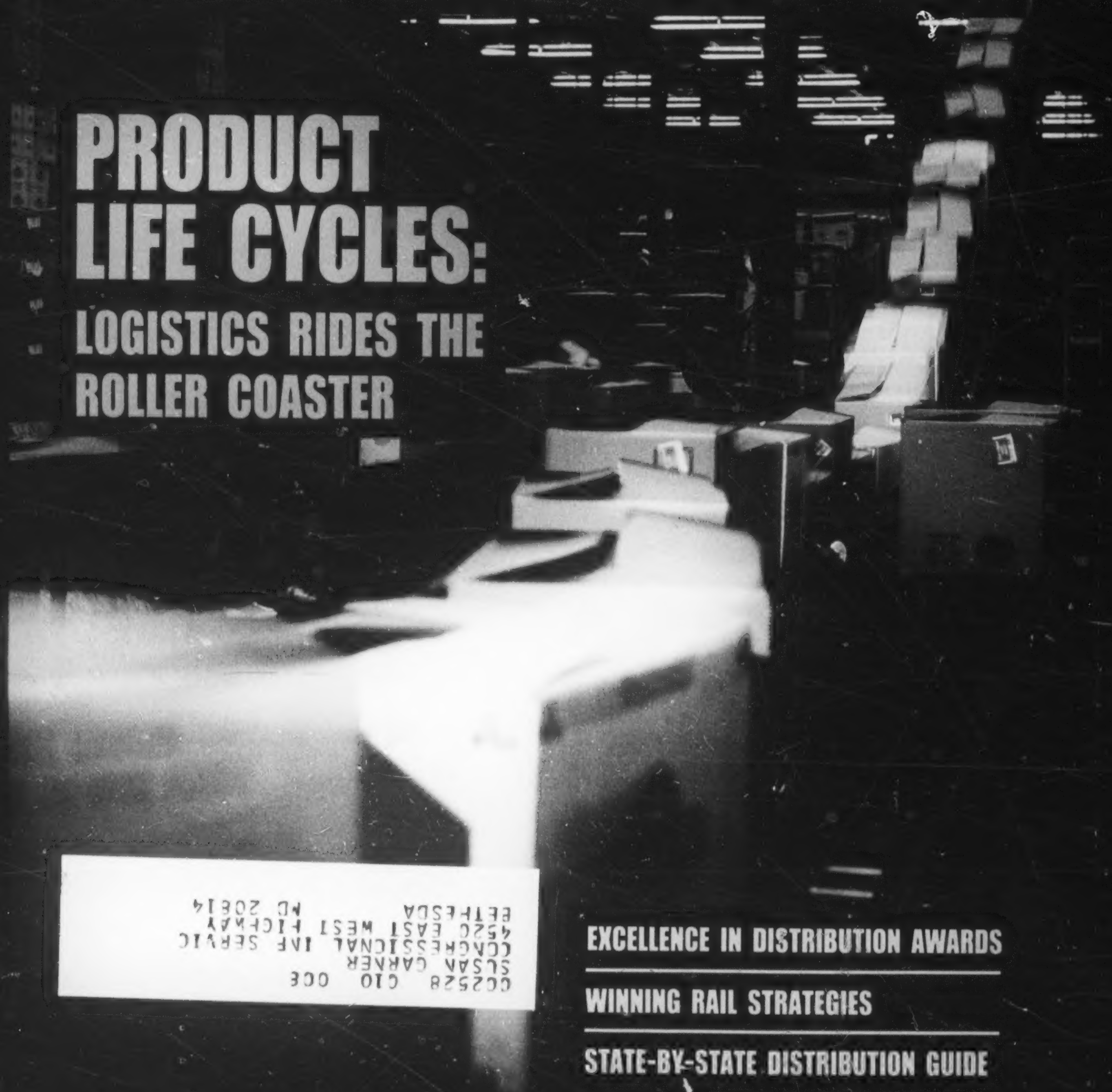

PRODUCT LIFE CYCLES:

LOGISTICS RIDES THE ROLLER COASTER

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WINNING RAIL STRATEGIES

STATE-BY-STATE DISTRIBUTION GUIDE

VOL. 86, NO. 9

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SEPTEMBER 1987

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Logistics of Global Proportions

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DIALOGUE

EXPORTER, EDUCATE THYSELF!

What advice do readers have for companies trying to be more export competitive? **Learn**. *Learn about the product you're exporting and the markets you're entering. Learn export documentation. Learn trade restrictions. Learn how to price exports. Exporting can be tricky, but it can be done successfully, readers say, if you're armed with the right knowledge.*

"Exporting is not easy, but it is simple and cost-effective if you take the time to learn documentation, trade terms, restrictions, and pricing – rather than just giving it to a forwarder and saying, 'Handle it.' " – **Jack J. Hanus, corp. transportation mgr., Miller Electric Mfg. Co., Appleton, Wis.**

"Be as innovative in exporting – packaging, mode selection, consolidations, etc. – as you would be in the domestic market." – **Wesley F. Baxter, gen'l traffic mgr., Uniroyal Chemical Co., Middlebury, Conn.**

continued

I would rate the export expertise of our company as:	
sadly lacking	25%
no worse than other U.S. companies	32%
as good as our foreign competitors	19%
great	24%
For my company to be more export competitive, we need to know more about:	
simple things like documentation	18%
international transportation services	16%
how distribution is done overseas	28%
how our foreign competitors operate	33%
To help my company get more export competitive, I'd be willing to:	
take courses to learn more	34%
take on exports in addition to my current work	27%
travel overseas to visit shows, customers, etc.	25%
move overseas to operate our international distribution network	9%

QUESTION OF THE MONTH

ANALYZING TRADEOFFS IN WAREHOUSING

Is your warehousing system adding value to your product? Or is it just a storage spot for costly inventories? Few companies today can justify large inventories just to avoid stock-outs and maintain customer service.

Top management is demanding greater return-on-investment in all assets, including inventory. Companies today are taking a harder look at their warehousing options to determine where steps can be eliminated and costs pared in the distribution pipeline. The tradeoffs between public and private warehousing, especially, are undergoing intense scrutiny.

Has this caused you to re-evaluate your warehousing strategy? What is your approach? Do you use your own warehouses, or have you turned your products over to a public warehouse? In your experience, have public warehouses taken steps to be more of a value-added service to you? Has this made them more competitive with your own warehouses?

Let us know on the DIALOGUE card below.

DIALOGUE

September 1987

- Do you find that just-in-time and other inventory-reducing strategies are (check all that apply): _____reducing inventory in all field warehouses, regardless of effect on customer service? _____reducing the number of private warehouses, but increasing the use of public warehouses to maintain customer service? _____reducing the number of public warehouses by consolidating inventory in fewer facilities, but maintaining similar total inventory levels? _____replacing field warehouse inventory with consolidation plans and direct shipments?
- If you have changed your warehousing strategies as a result of JIT or other inventory reduction strategies, what has been the result (check all that apply): _____Lowered customer service levels but no apparent impact on sales; _____Lowered customer service levels and erosion of sales or orders; _____Lowered warehousing costs and acceptable increases in transportation costs; _____Lowered warehousing costs and unacceptable increases in transportation costs; _____Lower inventory levels, faster turns, greater profit, and little change in sales; _____Poorer coordination of inventory with sales and little savings in total distribution costs

Here's what I need public warehousers to do in order to give them more business:

NAME (print) _____ TITLE _____

COMPANY _____ PHONE _____

ADDRESS _____

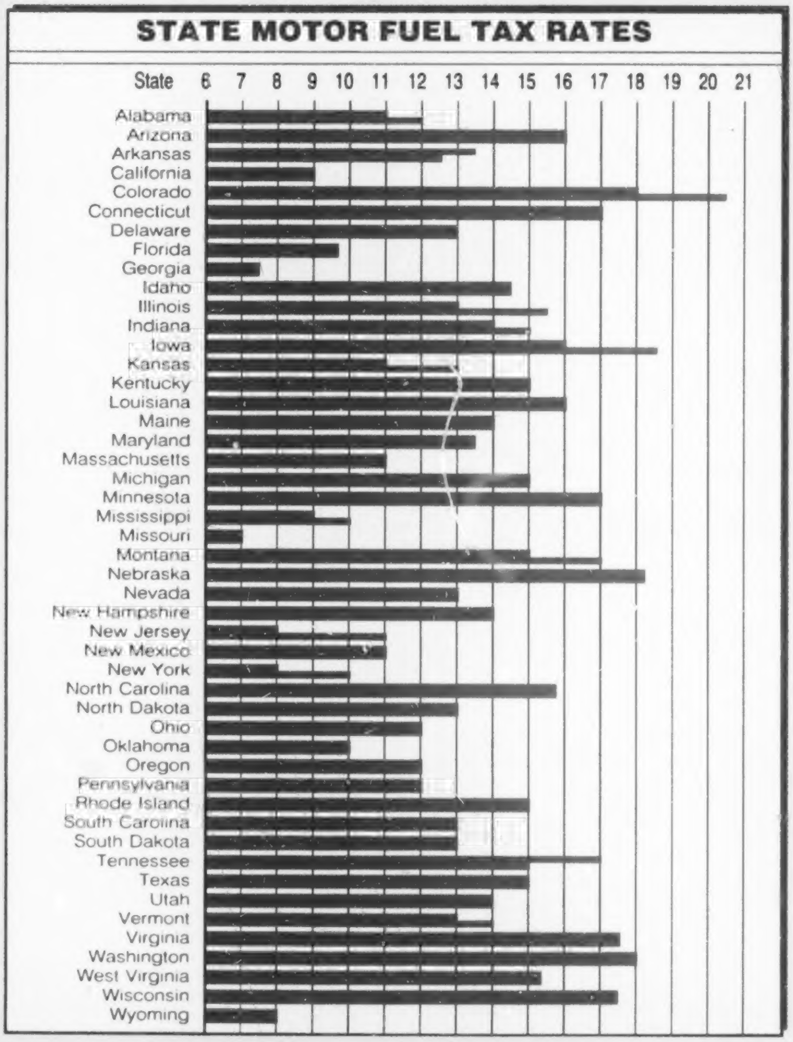
CITY _____ STATE _____ ZIP _____

STATE STATISTICS

GUIDE TO DISTRIBUTION & SITE LOCATION DECISIONS

DISTRIBUTION's annual rundown of business environments in the 48 contiguous states

STATE MOTOR FUEL TAX RATES



The information presented in this feature was gleaned from a number of sources. Because it was impossible to convey, in these charts, the full extent of the details provided by these sources, it is recommended that the reader consult these primary sources where appropriate.

One of the most useful tools for evaluating the states is the "General Manufacturing Climates" study. Conducted annually by Grant Thornton, an accounting and management consulting firm, it rates the states according to 22 economic factors. Contact Grant Thornton, 1700 Prudential Plaza, Chicago, Ill. 60601.

Data on motor fuel taxation is available from the Highway Users Federation, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036-1993.

Information on highway regulations, taxes, and reciprocity agreements is also available from the National Private Trucking Association (formerly the Private Carrier Conference), 2200 Mill Rd., Alexandria, Va. 22314.

FUEL TAX RATES represents the taxes imposed on motor fuels in cents per gallon. The bars are doubled, the upper segment indicating the tax on gasoline, the lower segment the tax on diesel fuel. In many cases the two fuels are taxed at the same rate. In addition to the basic rates, many states also impose additional mileage taxes, surcharges, etc. Eight states raised one or both of their motor fuel tax rates during the past year. One, Nebraska, lowered its rates.
Source: Highway Users Federation.

STATE STATISTICS

MOTOR VEHICLE SIZE, WEIGHT AND ACCESS RESTRICTIONS

	height			width		length										weight				access						
						straight truck					tractor/trailer															
	13'6"	14'	14'6"	96"	102"	35'	40'	45'	60'	see notes	60'	65'	70'	see notes	not specified	73,000 – 79,999 lbs	80,000 lbs	over 80,000	see notes	.5 miles	1 mile	3 miles	5 miles	10 miles	unlimited	see notes
Alabama	•			•			•				•						•				•					
Arizona	•			•			•								•		•								•	
Arkansas	•				•		•				•						•								•	
California		•			•		•					•					•			•						
Colorado	•				•		•						•					•							•	
Connecticut	•				•				•						•		•				•					
Delaware	•			•			•				•						•									a
Florida	•				•	•									•		•									b
Georgia	•			•					•		•						•				•					
Idaho		•			•		•								•		•								•	
Illinois	•			•						a				e		•							•			
Indiana	•				•					b					•		•								•	
Iowa	•			•			•				•						•						•			
Kansas		•			•					c					•			•							•	
Kentucky	•				•			•							•		•						•			
Louisiana	•			•			•								•				n			•				
Maine	•				•			•				•					•									c
Maryland	•			•			•								•	•										d
Massachusetts	•			•		•					•						•									e
Michigan	•			•			•							f		•							•			
Minnesota	•				•		•					•				•										f
Mississippi	•				•		•								•		•								•	
Missouri	•			•			•							g			•							•		
Montana	•				•		•								•		•									g
Nebraska			•		•		•					•						•							•	
Nevada		•			•		•						•			•									•	
New Hampshire	•				•	•									•		•									h
New Jersey	•			•		•									•		•									i
New Mexico	•				•		•					•					•									j
New York	•			•		•					•						•									k
North Carolina	•			•			•				•						•					•				
North Dakota	•				•		•		d					h			•							•		
Ohio	•				•		•								•		•								•	
Oklahoma	•			•			•							i				•								l
Oregon		•			•		•							j			•									m
Pennsylvania	•			•			•				•						•									n
Rhode Island	•				•		•								•		•									o
South Carolina	•			•		•					•						•					•				
South Dakota	•				•			•			•							•							•	
Tennessee	•			•			•							k			•								•	
Texas	•				•			•						l			•								•	
Utah		•			•			•						m			•								•	
Vermont	•				•				•		•						•									p
Virginia	•			•			•				•									•						
Washington		•			•		•								•										•	
West Virginia	•			•			•				•					•										q
Wisconsin	•				•		•				•						•					•				
Wyoming		•			•				•		•							•						•		

MOTOR VEHICLE RESTRICTIONS outlines the size and width limitations observed by the various states. The limits described are those imposed on vehicles travelling on state and non-designated highways. Limits governing vehicles travelling on the insterstate system are governed by the provisions of the Surface Transportation Assistance Act. Also included in the chart are the restrictions limiting access to the designated interstate highway system. The limitations listed under the "length" heading are those for a 2-axle straight truck, and for 3-axle tractor, 2-axle trailer combinations. The limits listed are those in general application. Several exceptions or additional restrictions may be applied in some cases.

Notes, vehicle sizes and weights:

a – maximum length = 42 ft.
b – maximum lentgh = 36 ft.
c – maximum length = 42 ft., 6 in.
d – maximum length = 50 ft.
e – maximum 55 ft. wheelbase
f – maximum length = 59 ft.
g – maximum length = 53 ft.
h – maximum length = 75 ft.
i = maximum length = 53 ft.
j = maximum length = 50 ft.
k = maximum length = 48 ft.
l = maximum length = 57 ft.
m = maximum length = 48 ft.
n – not specified

Notes, interstate system access provisions:

a – By permit only
b – Rural interchanges 1 mi. (2 lane) and 3 mi. (4 lane), urban interchanges 1 mi on crossroads with 12-ft. lanes. Other access by petition
c – Rural interchanges 2 mi., urban interchanges .5 mi.
d – Shortest practical route
e – By permit only
f – Determine on case-by-case basis
g – No policy
h – By permit only for twins
i – By permit only for twins
j – 20 mi.
k – Permit required beyond 1,500 ft.
l – "very reasonable" access
m – All but local roads, twins not restricted
n – 2 mi.
o – Doubles restricted to 1 urban mi., 1 mi. on 2-lane roads, 3 mi. on 4-lane roads in rural areas
p – Unpermitted twins .5 mi for access to food, fuel, lodging, terminals
q – 2 mi.

STATE STATISTICS

AVERAGE WAGES

State	Avg. Wage/hr.	% Change	State	Avg. Wage/hr.	% Change
Alabama	$ 8.64	23.25	Nebraska	$ 9.26	15.61
Arizona	9.84	22.69	Nevada	9.36	11.16
Arkansas	7.76	23.96	New Hampshire	8.80	37.29
California	10.37	21.14	New Jersey	10.13	25.84
Colorado	9.81	18.48	New Mexico	8.78	34.25
Connecticut	10.07	31.29	New York	9.92	26.53
Delaware	10.11	22.10	North Carolina	7.54	26.94
Florida	8.02	22.82	North Dakota	8.18	14.89
Georgia	8.34	30.93	Ohio	11.56	21.30
Idaho	9.66	17.38	Oklahoma	9.80	19.51
Illinois	10.67	19.75	Oregon	10.56	11.51
Indiana	10.81	15.37	Pennsylvania	9.74	17.35
Iowa	10.33	7.60	Rhode Island	7.90	29.51
Kansas	9.74	20.99	South Carolina	7.92	28.16
Kentucky	9.86	25.45	South Dakota	7.72	8.43
Louisiana	10.60	23.54	Tennessee	8.58	27.68
Maine	8.65	29.88	Texas	9.65	21.38
Maryland	9.96	18.71	Utah	10.05	29.84
Massachusetts	9.24	31.81	Vermont	8.83	30.04
Michigan	12.80	21.56	Virginia	8.84	29.24
Minnesota	10.20	21.43	Washington	11.77	12.74
Mississippi	7.46	24.13	West Virginia	10.33	17.95
Missouri	9.80	24.05	Wisconsin	10.35	17.61
Montana	10.95	20.46	Wyoming	9.70	22.94

AVERAGE WAGES represents the average hourly wage paid to manufacturing workers. The column labeled "% change" indicates the trend in the average manufacturing wage over the last three years. As was the case last year, the lowest average wage is paid in Mississippi, and the highest in Michigan. Both states' average wages are growing at rates which suggest they will maintain their current rank in the near future. Regionally, the Southeast presents the most favorable wage climate, with an overall average of $8.36/hr. per worker. At the same time, however, wages in the Southeast are rising faster than most areas of the country, as are those in New England, the region ranking second in average wages paid. Source: General Manufacturing Climates, Grant Thornton.

UNIONIZATION

State	Union Workforce	% Change	State	Union Workforce	% Change
Alabama*	17.59%	−7.24	Nebraska*	10.43%	−14.08
Arizona*	4.31	−4.04	Nevada*	7.62	−6.58
Arkansas*	13.64	−11.07	New Hampshire	7.41	−4.53
California	23.88	−6.03	New Jersey	24.17	−4.38
Colorado	10.52	−3.23	New Mexico	11.76	−15.43
Connecticut	15.56	−3.03	New York	51.05	−9.90
Delaware	21.21	10.52	North Carolina*	5.09	1.38
Florida*	8.93	−0.67	North Dakota*	12.26	−19.40
Georgia*	12.94	−3.97	Ohio	42.78	−10.25
Idaho*	10.25	−18.72	Oklahoma	17.42	−0.76
Illinois	34.27	−40.92	Oregon	23.86	−6.70
Indiana	42.83	5.45	Pennsylvania	43.14	−3.74
Iowa*	26.27	−25.94	Rhode Island	11.19	−2.21
Kansas*	12.54	−5.89	South Carolina*	3.76	−0.99
Kentucky	25.96	−11.67	South Dakota*	3.52	−6.88
Louisiana*	21.47	10.88	Tennessee*	14.55	−8.67
Maine	19.81	3.12	Texas*	15.20	2.38
Maryland	31.13	−2.46	Utah*	5.77	−7.56
Massachusetts	19.12	−5.48	Vermont	9.33	−4.29
Michigan	51.62	−10.12	Virginia*	12.25	3.28
Minnesota	20.39	−28.79	Washington	31.96	−19.59
Mississippi*	8.97	−0.43	West Virginia	34.24	−3.86
Missouri	34.58	−44.89	Wisconsin	27.79	−22.54
Montana	25.36	−6.54	Wyoming*	19.75	−3.58

UNIONIZATION indicates the degree to which the available workforce is unionized. This factor has a potential effect on the future cost of labor and on labor relations. The second column indicates the change in unionization as a percentage, over four years. Those states marked with an asterisk have enacted right-to-work laws. The figures show the decline in union membership is accelerating. In 14 states, membership has dropped by over 10 percent, while in Missouri and Illinois there has been an erosion of over 40 percent. Nationwide, membership was down 7.92 percent. Unions made the strongest showing in the South Central region. But even there they were barely able to hold their own, growing by a scant 0.36 percent. Source: General Manufacturing Climates, Grant Thornton.

LABOR PRODUCTIVITY

State	Work Stoppages	Value Added/$	State	Work Stoppages	Value Added/$
Alabama	0.216%	$3.51	Nebraska	0.081%	4.44
Arizona	0.051	5.01	Nevada	0.000	4.50
Arkansas	0.140	3.90	New Hampshire	0.000	3.86
California	0.025	4.71	New Jersey	0.003	4.63
Colorado	0.000	4.65	New Mexico	0.000	4.03
Connecticut	0.105	4.34	New York	0.033	5.19
Delaware	0.096	4.33	North Carolina	0.000	4.22
Florida	0.001	5.02	North Dakota	0.000	5.05
Georgia	0.015	4.15	Ohio	0.202	3.77
Idaho	0.050	3.98	Oklahoma	0.000	3.93
Illinois	0.139	4.13	Oregon	0.171	3.59
Indiana	0.393	3.67	Pennsylvania	0.224	3.81
Iowa	0.806	4.70	Rhode Island	0.387	3.56
Kansas	0.000	4.41	South Carolina	0.000	3.66
Kentucky	0.010	4.43	South Dakota	1.000	4.45
Louisiana	0.003	5.09	Tennessee	0.000	4.06
Maine	0.698	3.45	Texas	0.018	4.94
Maryland	0.008	4.01	Utah	0.428	4.45
Massachusetts	0.054	4.69	Vermont	0.000	4.54
Michigan	0.104	3.26	Virginia	0.030	4.23
Minnesota	0.220	4.69	Washington	0.102	4.10
Mississippi	0.000	3.94	West Virginia	0.096	3.75
Missouri	0.067	4.66	Wisconsin	0.014	3.80
Montana	0.149	3.26	Wyoming	0.000	4.60

LABOR PRODUCTIVITY represents, in the first column, the percentage of working hours lost due to work stoppages. The second set of figures shows the average value added to manufacturing production for each dollar invested in payroll expenses. The range in both sets of figures is wide. Several states recorded no work stoppages within the scope of the survey (data was not collected for stoppages involving fewer than 1,000 workers). On the other hand, South Dakota reported over 1 percent of available time lost. The value of each added dollar of payroll ranged from $3.26 to $5.19, but while the figures among individual states varied greatly, the differences from region to region were less dramatic. Source: General Manufacturing Climates, Grant Thornton.

STATE STATISTICS

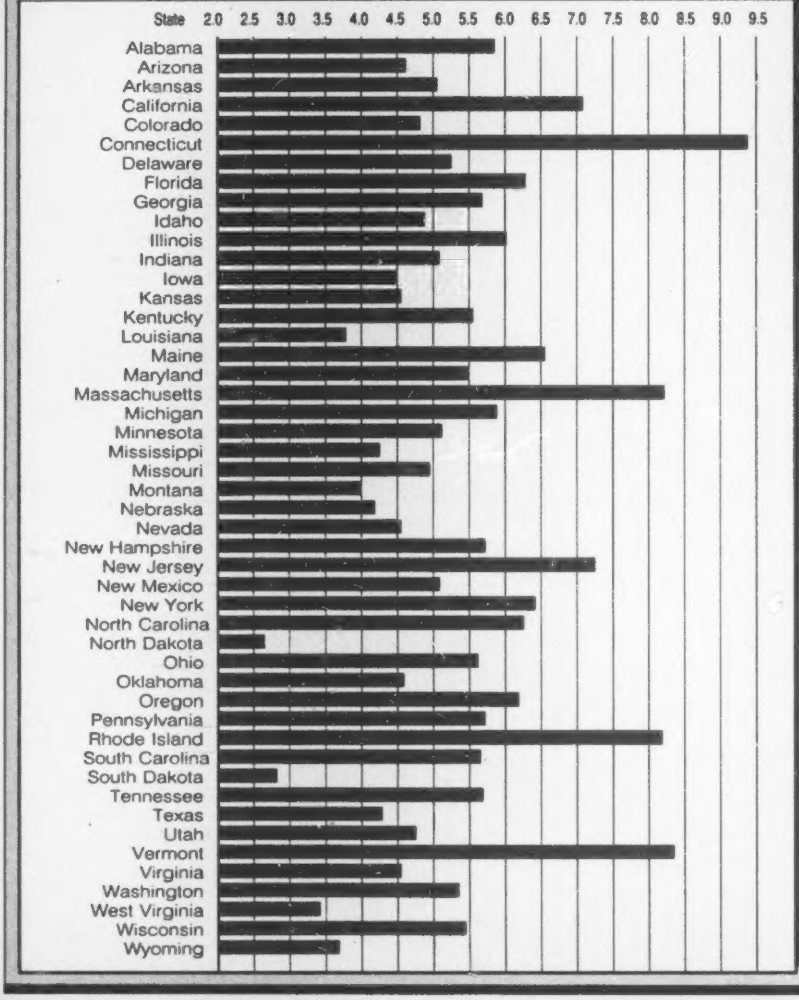
RECIPROCITY AGREEMENT PARTICIPATION

State	MRA	IRP	UPA
Alabama	YES	YES	NO
Arizona	YES	YES	YES
Arkansas	NO	YES	NO
California	NO	YES	YES
Colorado	YES	YES	YES
Connecticut	NO	YES	NO
Delaware	NO	NO	NO
Florida	YES	YES	NO
Georgia	YES	NO	NO
Idaho	NO	YES	YES
Illinois	YES	YES	YES
Indiana	YES	YES	NO
Iowa	NO	YES	YES
Kansas	YES	YES	YES
Kentucky	YES	YES	NO
Louisiana	YES	YES	NO
Maine	YES	NO	NO
Maryland	YES	NO	NO
Massachusetts	NO	NO	NO
Michigan	YES	YES	NO
Minnesota	NO	YES	YES
Mississippi	YES	YES	NO
Missouri	YES	YES	YES
Montana	YES	YES	YES
Nebraska	NO	YES	YES
Nevada	NO	NO	YES
New Hampshire	NO	NO	NO
New Jersey	YES	NO	NO
New Mexico	NO	NO	YES
New York	NO	NO	NO
North Carolina	YES	YES	NO
North Dakota	YES	YES	YES
Ohio	NO	NO	NO
Oklahoma	NO	YES	NO
Oregon	NO	YES	YES
Pennsylvania	NO	YES	NO
Rhode Island	NO	NO	NO
South Carolina	YES	YES	NO
South Dakota	NO	YES	YES
Tennessee	YES	YES	NO
Texas	NO	YES	NO
Utah	NO	YES	YES
Vermont	YES	NO	NO
Virginia	YES	YES	NO
Washington	NO	NO	YES
West Virginia	NO	YES	NO
Wisconsin	NO	YES	NO
Wyoming	NO	YES	YES

RECIPROCITY AGREEMENT PARTICIPATION is a checklist of the three major truck registration agreements:

- **Multistate Reciprocal Agreement**—a registration plate issued in the home state is honored by all participants. Fuel taxes are paid to each state on a per-mile basis;
- **International Registration Plan**—based on a single apportioned registration plate and a card carried inside the vehicle which lists other states it can operate in. Registration fees are based on historical or forecast mileage;
- **Uniform Proration Agreement**—a home state license is issued containing spaces for decals purchased from other states. Registration fees are based on average mileage. Source: Commercial Carrier Journal.

ENERGY COSTS PER MILLION BTUs



ENERGY COSTS indicates the cost, in dollars, of fuel and electric energy. Statistics are not available for years after 1981. The figures thus represent approximations based on forecasting current prices from the 1981 statistics. Businesses in New England have paid the most for energy. The region paid over 28 percent more for fuel (The average cost per million BTUs in New England was $7.10.) than did the second most fuel-expensive region. Source: General Manufacturing Climates, Grant Thornton.

WHERE TO DRAW THE LINE

Several charts in this feature summarize information gathered by Grant Thornton in its "General Manufacturing Climates" survey. For the purposes of the study, the 48 contiguous states were grouped into eight regions as follows:

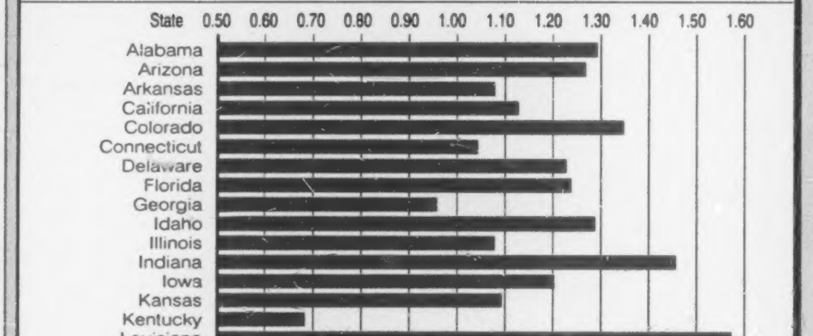
Southwest–Arizona, Colorado, Nevada, New Mexico and Utah;
Southeast–Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Virginia;
North Central–Idaho, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota and Wyoming;
South Central–Arkansas, Louisiana, Oklahoma and Texas;
New England–Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont;
MidEast–Delaware, Maryland, New Jersey, New York, Pennsylvania, West Virginia;
West–California, Oregon and Washington, and;
Great Lakes–Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.

STATE STATISTICS

STATE AND LOCAL TAX RATES

State	Taxes/ $1,000	% Change	State	Taxes/ $1,000	% Change
Alabama	$ 89.40	3.56%	Nebraska	$ 99.12	1.24%
Arizona	94.91	–18.00	Nevada	64.93	–0.61
Arkansas	87.90	7.34	New Hampshire	68.90	–12.09
California	94.46	–1.24	New Jersey	108.53	–7.85
Colorado	83.18	–14.37	New Mexico	79.27	–2.51
Connecticut	99.24	–2.99	New York	158.43	–7.37
Delaware	77.38	–18.98	North Carolina	89.44	–1.69
Florida	72.77	–6.11	North Dakota	81.70	7.27
Georgia	88.91	–7.24	Ohio	105.42	21.72
Idaho	91.32	0.11	Oklahoma	71.08	2.85
Illinois	110.32	11.03	Oregon	102.82	10.92
Indiana	95.70	13.18	Pennsylvania	105.98	–0.29
Iowa	111.80	19.90	Rhode Island	122.90	1.55
Kansas	96.74	6.52	South Carolina	94.56	3.44
Kentucky	86.01	2.79	South Dakota	85.92	2.15
Louisiana	77.20	1.94	Tennessee	80.71	–7.24
Maine	105.35	–3.95	Texas	66.36	7.64
Maryland	99.75	–8.77	Utah	109.87	8.48
Massachusetts	105.40	–27.03	Vermont	93.78	–14.43
Michigan	129.75	14.11	Virginia	88.68	–0.26
Minnesota	122.75	7.74	Washington	103.36	7.23
Mississippi	94.04	–2.93	West Virginia	100.48	27.89
Missouri	85.27	3.63	Wisconsin	132.66	12.21
Montana	93.47	11.71	Wyoming	105.10	28.30

EXPENDITURES VS. INCOME



STATE AND LOCAL TAX RATES indicates the level of all state and local taxes per $1,000 of personal income. "% Change" indicates the trend in taxation over five years. Data is based on the 1984 tax year. The most recent available figures indicate the trend towards lower tax rates is gaining momentum, with the result that nearly as many states experienced a decrease in taxation as had tax hikes over the sample period. Performance in taxing history follows strong regional lines. In three regions, North Central, South Central, and the Great Lakes, no states show a net reduction over the five-year period. At the same time 14 of the 17 states in the Southwest, New England, and Mid East regions lowered taxes. Source: General Manufacturing Climates, Grant Thornton.

EXPENDITURES VS. INCOME indicates the ratio of the growth of state government spending with the growth of personal income. This figure represents the fiscal responsibility of the state governments, and the relative potential for increased tax burdens in the states. Results less than 1.00 indicate conservative spending policies, while results over 1.00 show that government spending is increasing faster than personal income. Those states with a high ratio are increasing their debt, or at least depleting reserves. Over the long term these states will experience either increasing tax rates or cuts in government services. The states seem to be in better shape in this regard than the federal government. Roughly one-third of the states are either below or just slightly above the 1.00 mark, and there are indications of movement in a positive direction. The figures presented are based on data obtained for the years 1980 to 1985.

The Southeastern region contains six of the top ten performers in this comparison, but the New England states show the best overall average of any region. The North Central region shows the worst average, but that result is due primarily to the astronomical figure turned in by Wyoming. Excluding Wyoming, the North Central region's average is fairly moderate. Source: General Manufacturing Climates, Grant Thornton.

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Tales of Trucking Tactics

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IS THREE A CROWD?

Third-party logistics services run the full gamut of sophistication. These vendors provide relatively simple services like freight bill auditing and payment, yet they also perform complete logistics services, from transportation to information management. How are you using these services? Are they a cost-effective alternative for some of your logistics needs?

"Third-party logistics services means specialization of our transportation needs. This specialization will decrease total costs and increase the overall effectiveness of our fleet."—**Dennis Webber, traffic mgr., Interstate Brick Co., W. Jordan, Utah.**

"Third-party logistics services have had no part in our distribution network, nor will they have a part in the future. As long as our top management commits the company's resources to our department, we can outperform any outside agencies. And as long as we contribute handsomely to bottom line profits we will continue to have management's full support."—**Ron Duin, director of distribution, Global Equipment Co., Hempstead, N.Y.**

continued

We use 3rd party logistics services regularly for:	
contract carriage	33%
freight bill auditing/payment	21%
public warehousing	13%
consulting	12%
Our use of 3rd party services is greater than it was five years ago	89%
3rd parties can provide more efficient service than our in-house staff	49%
cannot provide more efficient service	51%
Our company is moving toward replacing transportation/distribution operations with a 3rd party vendor	49%
Which departments are most likely to be replaced?	
private fleet	21%
traffic	18%
private warehouse	15%

QUESTION OF THE MONTH

ARE TRUCK RATES CLIMBING?

Second quarter earnings reports reveal that some of the nation's largest motor carriers are having a rough go of it out there. Nearly everyone blames it on the vicious discounting wars that have embattled motor carriers since 1980. Do you think there is an end in sight to these discount wars?

How about general rate levels? One strategy motor carriers are using to take the sting out of discounts is to raise the base rate through general rate increases. Major rate bureaus such as the Middle Atlantic Conference and the Rocky Mountain Bureau have announced rate increases ranging from 3.25 percent to 5 percent. But what will the real impact of these proposed increases be on shipper's real freight costs?

Do you see your rates climbing in the coming year? If so, what will your strategy be to offset the higher cost of moving your goods?

DISTRIBUTION wants to know what's happening with freight rates these days. Is the discounting frenzy continuing unabated? Are discounts getting deeper? How have the general increases at the major rate bureaus affected your rates? Have you been able to negate their impact?

DIALOGUE

October 1987

- The frequency and level of freight rate discounting is ______increasing/______decreasing.
- My management expects me to secure a certain discount level. ______yes/______no.
- The average discount my company receives now is ______ percent.
- The average discount my company received a year ago was ______ percent.
- A general rate bureau increase of 4 percent would translate into an effective increase to my company of: ______4 Percent ______3 percent ______2 percent; ______1 percent; ______0 percent.
- The best way to avoid the impact of general rate bureau increases is to (check one): ______concentrate freight among "cooperative" carriers; ______be a tough negotiator; ______play one carrier off against another; ______find another carrier; ______use a broker; ______adopt a released-value rate; ______other (describe): ______________________
- In what area are rates going up the most? (check one): ______truckload; ______LTL interstate; ______LTL intrastate; ______intermodal; ______other (describe): ______________________

I'd be willing to pay higher freight rates if:

____

____

____

____

____

____

NAME (print) ______ TITLE ______

COMPANY ______ PHONE ______

ADDRESS ______

CITY ______ STATE ______ ZIP ______

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of DISTRIBUTION editors:)

"The goal of Customs is to operate in a paperless environment. We don't necessarily need all the document materials to clear and release your freight. In fact, we'd be happy to eliminate checks and drafts in favor of moving monies electronically.... We're going through this process in fits and starts, but we are making meaningful progress. We are trying to meet your needs. We know that with air cargo the documents often do not move as fast as the freight. Automating the process while minimizing the paperwork required may finally permit air freight to realize its full potential in terms of door-to-door timeframes."—**Samuel H. Banks, assistant customs commissioner, inspection & control.**

•

"When focusing on overseas markets, the U.S should lead from one of its major strengths—its already highly developed logistics capabilities. Unlike the value of the dollar, the logistics function is under our control. Logistics not only is a major factor in landed costs, it is a major *controllable* factor. It can make a difference in America's competitiveness."—**Elliot Schrier, president, Manalytics, Inc.**

IS THREE A CROWD? continued from p. 7

"Until companies become more familiar with logistics, third-party services can provide expertise in start-up instruction and implementation. But to control costs, the company must eventually take over third party functions and run them internally."—**Paul Kiefer, traffic mgr., BASF/Inmont Div., Clifton, N.J.**

"We use third parties to handle peaks in our business when it is not cost effective to have a $65,000 tractor for one day a week."—**R. Tindall, vp/traffic, Mennel Milling, Fostoria, Ohio.**

"We don't foresee a change in our use of third-party services. We only use an auditing service, and we only pay for it when it is earned."—**W.A. Haigh, director of purchasing, Mazer Chemicals, Gurnee, Ill.**

"Third-party services give you the flexibility to start up or shut down, grow or shrink, especially in unionized and legislatively restrictive atmospheres."—**A. Klawans, managing director, National Food Distribution Assn., Chicago.**

"For us, third parties are necessary due to an increased workload and no possibility for an increase in staffing. We are looking for the best job possible from people with a broader base of knowledge."—**D.F. Hales, director, purchasing/traffic, Ormet Corp., Hannibal, Ohio.**

"A contract carrier pulls our trailers with our material to our outlying districts for about one-fourth of what it would cost using our union labor."—**Don Nielsen, trans. admin., Sierra Pacific Power Co., Reno, Nev.**

"I see our company using a third party to handle the general logistics of our 16 divisions, but this third party would be an owned subsidiary."—**H. Nicholls, dist. svc. mgr., R.R. Donnelley & Sons, Warsaw, Ind.**

"With many firms downsizing their operations, assets, personnel and direct capital commitments, third-party logistics service companies can play a major role in spearheading materials logistics system innovations. They also can minimize the downside risks of testing and implementing those innovations."—**Dr. Edward J. Marien, dir., transportation seminars, Management Institute, Madison, Wis.**

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IF YOUR BUSINESS HASN'T YET "GONE INTERNATIONAL" CHANCES ARE IT SOON WILL. DO YOU AND YOUR COMPANY HAVE THE SKILLS AND ATTITUDE TO MAKE LOGISTICS A COMPETITIVE FACTOR IN IN THE GLOBAL MARKETPLACE?

By E.J. Muller, West Coast Editor

Check this out. A large retailer of consumer electronics recently paid a large consulting firm a large amount of money to examine its operations and recommend cost and service efficiencies. The consultant walked in to meet with the president of the company, who was brandishing a shipping trade newspaper. Right off the president says, "Do you think $4,500 is too much to spend on a container crossing the Pacific?"

"Yes," says the consultant. "You shouldn't have any problem getting rates around $3,000. Why aren't you?"

"Oh, well, that's Charlie's area. He doesn't get into the international side too much," explained the president.

"Really? What's Charlie's title?" asked the perplexed consultant.

"Director of Logistics. Why?"

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Laugh a little, but not too loudly. Because it's a true story, not a joke. And it seems to be true of more companies than you might expect, considering the passionate crusade that's been going on for years about the "internationalization" of business and the need for integrated global logistics.

Despite every indication that American businesses will continue to get more deeply involved in procuring, manufacturing, assembling, buying and selling (yes, *selling*) overseas, most U.S. companies are not properly prepared to use logistics to their competitive advantage. The company president in our opening scene is representative of the vast majority of executives in America: Unaware of the intricacies of shipping, and oblivious to how that aspect of the business impacts marketing and customer service. It seems as if all the talk about a brave new world of global logistics is taking place in a rarified atmosphere—glassy consultant's offices, expensive seminars, trade magazines. The gap is huge between the theory of global logistics and the reality of international transactions. "More companies are doing planning for international operations," relates Dale Marco, vice president of management consulting firm A.T. Kearney, "but you don't see a lot of it trickling down to the practical level. You don't see much in the way of tactics."

Marco believes it's because most of the planning going on is not comprehensive. It doesn't consider transportation and distribution as part of the big picture. In larger companies, that leads to fragmented decision-making, often based on unclear direction.

Time To Rethink Approaches?

It is important to realize that the global logistics trend is not affecting only huge multinational corporations. The logistics operations employed by globe-spanning manufacturers often benefit from tremendous capital investment in offshore plants and warehouses. Global logistics is nothing new to these companies; it's the way they've done business for years.

Smaller companies involved in importing or exporting don't have the kind of steady product flow that would benefit from an integrated approach to logistics. They frequently decide that the best thing to do is to get a trusty forwarder or broker and let them handle the shipments. But if business booms for that small company, the time will come when it will have to take another look at how it handles international transac-

continued

THE EVOLUTION OF LOGISTICS MANAGEMENT

STAGE	I	II	III	IV
Activity Focus	• Today	• This month	• This year	• Long-term
Effectiveness Measure	• Actual cost versus sales	• Actual cost versus budget	• Actual versus annual goals	• World competition
Reason for Action	• Crisis	• Budget pressure	• Improvement program	• To gain strategic advantage
Type of Action	• Quick fix	• Cost reduction	• Productivity improvement	• Integrated planning
International Activity	• Receiving inbound containers • Arranging forwarders to handle export shipments	• Negotiating with overseas suppliers for transportation • Arranging export shipments	• Setting up overseas distribution • Setting up JIT suppliers • Production scheduling	• Integrated operations planning and control worldwide • Participation in strategic decisions worldwide

WHERE DO YOU FIT IN?

In its presentation "Developing Global Strategies for the 1990s," A.T. Kearney determined that companies involved in overseas activity could be viewed in four stages. While most of the talk about integrated logistics revolves around Stage IV multinationals, the same principles often apply to Stage II and III companies. Speculation about U.S. companies adopting a more sophisticated approach to international logistics hinges on these small to mid-sized firms taking firmer control of overseas traffic and distribution by making it part of their advance planning.

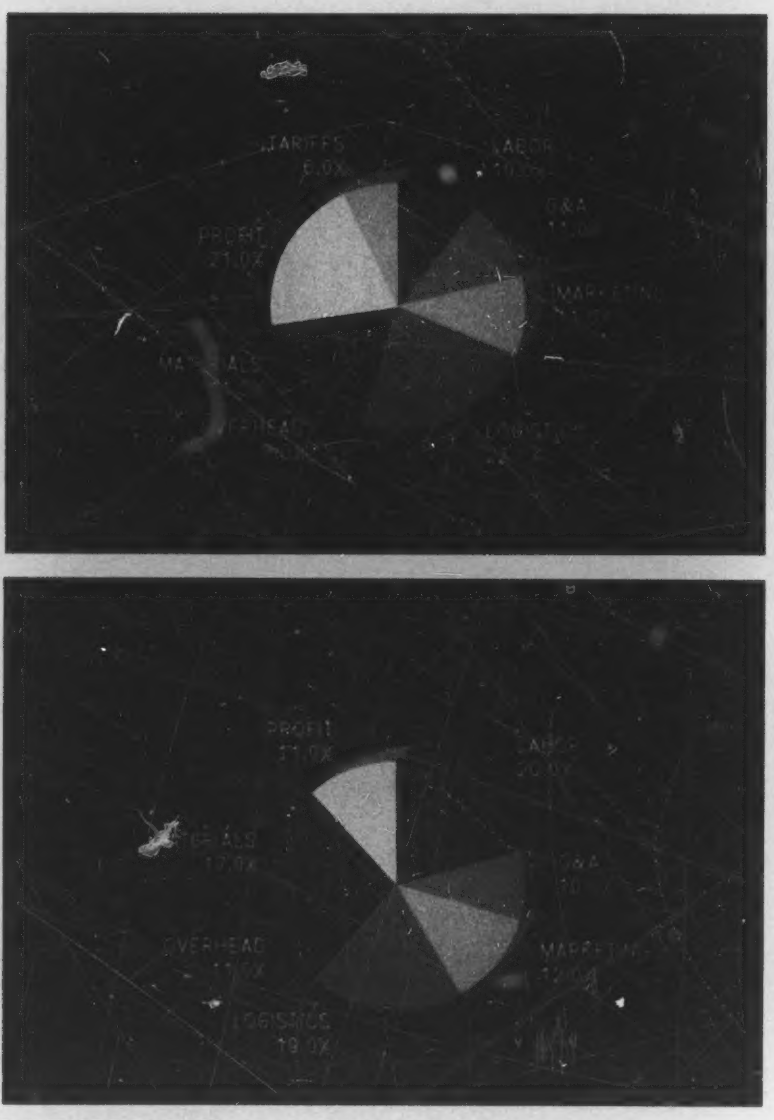
tions. It's the companies making those initial forays into a broader international arena which have the most to gain from a fresh, integrated approach to logistics. These are the companies which will either accept or reject the notion of global logistics.

"When international business reaches about 10 percent of sales, that's when most businesses first start paying attention to how the freight is actually moving," says Dave Anderson, vice president of logistics for consulting firm Temple, Barker & Sloane. But to date "paying attention" hasn't really developed into any significant changes in the way most companies handle international logistics, admits Anderson.

So is all the talk of logistics being a competitive weapon in the global market only that – talk? "It can certainly be a competitive factor," Anderson asserts, "but a lot of people don't understand why. It's still typically a case of, 'We got an order, we filled it, that's it.' They don't realize that in the international market, the customer could say, 'You were so expensive last time we're not going with you again.' "

To really be internationally competitive, U.S. companies, regardless of size, will have to address the issue of how logistics affects global sales and service. Anderson asserts that foreign businesses have made far greater headway in this area. "There's a Japanese auto manufacturer involved in a joint venture in the States, and from the very start its goal was to have the most cost-efficient inbound-outbound logistics operation in the world," he relates. "They knew that without it they wouldn't survive. They planned it all out up front, because they knew that logistics costs were the only variable."

Many U.S. companies, by focusing only on international sales and marketing, have never been able to grasp the "hidden costs" involved in logistics. "Most companies are buried in traditional cost accounting," says Kearney's Dale Marco, "and are unaware of significant hidden logistics costs. The companies that address these costs will be successful; others probably won't be around."



THE CASE FOR INTEGRATING LOGISTICS WORLDWIDE
These charts compare the cost of manufacturing through a domestic plant and an overseas plant. With offshore plants, the cost of labor, materials and overhead is lower, while the cost of logistics is higher and the cost of tariffs becomes a factor. The potential for profit is greater, too. How much greater can, to a large extent, be up to the logistics department.

Separate Int'l and Domestic?

Most of the progressive thinkers in the logistics area seem to share the notion that if a company plans to expand its sourcing or sales overseas, it should break down the traditional division between domestic and international departments. While maintaining separate domestic and international staffs makes sense, not having a core group responsible for the integration of the two departments could be a mistake. "In small to

continued

medium-sized companies," Anderson notes, "I do see a global logistics manager emerging. His or her job will be to understand the business from a broader perspective, to have expansive insights, not just to expedite freight."

It seems, however, that even in progressive companies, the trend toward global logistics is slow and painful. America's 12th largest exporter, a manufacturer with plants across the globe, recently told us it was embarking on an "international re-education" program for U.S. employees involved in international logistics. "There are still too many domestically-oriented individuals," says a company source.

"A lot of domestic people are afraid of international," says Chuck Marr, director of corporate traffic for Hewlett-Packard. "That means they tend to ignore the fine points. I've found that the people who are successful in international transactions are those with an international aptitude."

That means not falling victim to the traits that Dale Marco sees afflicting many U.S. shippers who deal overseas. "We don't listen well enough over here. If we did, we might not have to spend so much," he says. "We think in the U.S. that all business revolves around us. Well, things are done

GLOBAL PERSPECTIVE: COMPARING

Having sensed that a widening gap exists between international logistics theory and the daily practice of moving freight around the world, we decided to compare International *Theory* with International *Practice* by having a consultant and a practitioner address five points concerning changing trends in global logistics.

DAVID ANDERSON

David Anderson, vice president, logistics for Temple, Barker & Sloane is one of the most respected consultants in the field. Numbered among his clients are a host of leading Fortune 500 companies.

INTERNATIONAL THEORY

1. Should international logistics be separated from domestic?

"Companies must focus on *total* delivered price and service quality to compete in today's global markets. Rapid growth in multinational product flows, coupled with an increased focus on source-to-customer distribution channel management argue for integrated domestic and international logistics."

2. What are the critical issues affecting international logistics managers?

"Increasing difficulties in managing overseas logistics; no longer is a competent local manager sufficient. Improved interface with key departments and frequent communications are key. Leading edge companies are putting overseas carriers, facilities and third parties on-line to closely monitor activities.

"Integrating information systems across international logistics channels. Not only do domestic/foreign communications need improvement, but information bases supporting the various transactions and decision-support systems must be revamped to permit service level and productivity improvements throughout logistics functions.

"Foreign trade restrictions and economic unrest are becoming more subtle and sophisticated; long supply lines, coupled with labor unrest, can shut down inbound product moves overnight. Logistics managers must carefully monitor potential changes in countries in which they operate.

"Adapting to free market currency variations requires sophisticated planning. Daily fluctuations in currency levels can cost a company millions. One U.S. company values all European transactions in European Currency Units, avoiding internal problems in judging inter-country financial performance."

3. What skills are needed to be a global logistics executive?

"The ideal candidate would be well-rounded, both from an educational and business perspective. An MBA is preferred, with courses in international business essential. Within a company, the candidate should have served both at home and overseas in one or more key business functions: marketing, finance, operations, or logistics. Finally, the candidate should have a business *weltanschauung* (world view) of markets, manufacturing and logistics systems."

4. Will any dramatic changes occur in international logistics over the coming year?

"Foreign companies are much more knowledgeable about how logistics can be used as a competitive weapon to penetrate a market. U.S. companies will face enhanced competition both in domestic and foreign markets based in part on the use of innovative systems now under development."

5. What steps should small to medium-sized companies take to avoid the "wash our hands of it" approach to international logistics?

"In many companies, logistics is relegated to lower management. Successful international companies have a senior executive who has a *daily* interest in logistics. To do this, smaller companies are now requiring overseas carriers, manufacturers and third parties (brokers, forwarders) to provide on-line shipment status information for control purposes."

differently in other parts of the world and we can't afford to have an arrogant attitude. As international business expands, that attitude will have to change."

How is international different from domestic? The most obvious difference is paperwork; customs requirements, more bills of lading, letters of credit, more doubt, more splitting headaches. That's why so many smaller companies leave those burdens to freight forwarders and customshouse brokers. But going that route doesn't always dispel ignorance; often, it merely displaces it. A company that wants to control its logistics, and its costs, needs to *comprehend* its international logistics, not merely pass on the responsibility to a forwarder or customs broker (see sidebar, p. 20).

Carriers Impact

Carriers have started to play an interesting role in the development of international logistics. Companies such as American President Companies, Sea-Land, Maersk, and a host of Far Eastern steamship lines now bill themselves as total transportation companies, able to handle international movements door-to-door.

This assuages many shippers' traditional fears of international

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LOGISTICS THEORY AND PRACTICE

Robert Vidrick, director of corporate transportation for Robertshaw Controls Corp., is an esteemed transportation industry veteran. He frequently jokes about the evil "Three C's" of logistics: Computers, consultants and college professors.

ROBERT VIDRICK

INTERNATIONAL PRACTICE

1. Should international logistics be separated from domestic?

"No. It should be integrated into domestic logistics. That could mean a reorganization of the current T&D department. Consider a pipeline from Chicago to Tokyo: in order for the product to flow smoothly you can't put a valve in the pipeline at the port and turn it on and off. You need a continuous flow. Since domestic carriers are now interfacing with their international counterparts, the T&D department must complement this interface."

2. What are the critical issues affecting international logistics managers?

"The international customer expects a landed price of his product, including transportation and documentation costs. It can be a problem when the price quotation must be forecast as much as 120 days in advance, or more, so the customer can get proper import authority and necessary financial documents. It's difficult to lock in a price because of the constant price changes in various transportation modes. If you are quoted a price in June for delivery overseas in November, did you allow for the truck rate increase that will take place in October? Exactness on price quotations is almost mandatory in international sales.

"Transit time is critical, more so than in domestic. Letters of Credit, arranged weeks in advance, note specific shipping times. They must be met. If you fall behind and try to make up for it by shipping air freight, you'll get stuck with the cost unless that mode is specifically designated in the Letter of Credit. Also, the documentation is vital. An error or oversight can cause terrible delays."

3. What skills are needed to be a global logistics executive?

"You first have to hone skills that you developed in the domestic area. The principles are the same, and a strong base is needed. Then you have to understand how the rules of international logistics vary from domestic. Education in U.S. government, foreign regulations and international banking procedures is mandatory. You needn't go to formal classes, just read the pertinent regulations that exist on each subject. You can't get complacent though, because rules and regulations are changing every day."

4. Will any dramatic changes occur in international logistics over the coming year?

"The administrative requirements of the exporter or importer will increase. Even though the government says it's doing everything to promote exports, it is increasing the administrative work, not reducing it. For instance, the Harbor Maintenance Fund requires an exporter to maintain records of all export shipments so a quarterly check can be sent to Customs. This is a hardship to the exporter at the same time they are asking businesses to sell more overseas. Licensing and documentation will continue to be time-consuming. We can only hope that a lot of the work will be done via EDI systems."

5. What steps should small to medium-sized companies take to avoid the "wash our hands of it" approach to international logistics?

"Talk to a comparable company that is engaged in international business and get their views. If you are exporting, get the local Department of Commerce field office to help you. The Commerce people are knowledgeable and willing to help. And lastly, get educated, either in the classroom or through advisers. I've found, however, that when it comes to education in international logistics, our colleges are not doing it well enough."

transportation. But this, says Marco, "makes it too easy for the traffic guy. When you pick apart the total movement, you see great opportunity for selection."

We are not denegrating the quality service provided by many of these carriers; we are saying that in some cases, one-stop shopping isn't conducive to a cost-efficient logistics operation.

Customer Service Priorities

The ultimate goal of integrated logistics is improved customer service and greater cost control. While some people shake their head at the idea of establishing service standards in the volatile world of international freight distribution, others are meeting the challenge. Earlier this summer, a seminar at Intel Corporation, the California-based semiconductor manufacturer, spotlighted the company's concerns in improving its global logistics network.

"We need to know our customers better, and we should stop avoiding problems," says Diana Harris, Intel's director of corporate distribution. "Everyone needs to get smarter, to use available data and develop assumptions." Distribution people must become more familiar with their procurement counterparts, and develop strategies to complement the company's production plans, she adds.

"It doesn't do any good to beat your head against the wall trying to lower your cost per pound if you're getting the freight there too late," says Harris. "You have to understand the company's priorities, and that takes an integrated approach." Participants concluded that within the corporate group, people should be assigned the task of sparking facilitation between departments, and make sure that discussion results in *action*.

The Intel distribution folks hit on something essential regarding logistics, especially the international variety: Communication is what it's all about. Between departments, between agents, carriers, buyers and sellers.

Dale Marco has definite opinions on why international logistics planning hasn't been embraced by more U.S. companies. "Top management fails when it comes to developing comprehensive manufacturing and logistics strategies," he says. "There are too many fragmented decisions. The guy in T&D doesn't know what he's supposed to be shooting for, so he spends most of his time 'firefighting.'

"What T&D people should do is ask management, 'What is our plan? How do we fit in? Tell us more.' Management has to consider these things. Otherwise, if businesses continue to expand overseas, you'll see a lot more frustrated distribution people." ★

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FINDING AND KEEPING AN INTERNATIONAL AGENT

International transactions nearly always have an agent involved, a freight forwarder or customshouse broker that helps alleviate the confusion and stress that often accompanies overseas shipments. Too often, however, a shipper merely dumps the shipment responsibility on the agent. Such carelessness always comes back to haunt, either as shipping errors or inflated billing.

Hal Plimpton, a respected international shipping consultant based in Mill Valley, Calif., provided us with a nifty guide to help exporters and importers select a dependable agent, and maintain a constructive relationship with them.

- Know thyself. Thoroughly review your outside service needs. Define what you want handled outside the company. Document your expectations of an international agent.
- Select an agent with the same consideration you would give to hiring employees.
- Bid packages should contain comprehensive profiles of your company activity. Be sure to provide sufficient information to a prospective agent so it is not bidding blind. Otherwise you are setting it up to fail.
- Discuss performance standards, theirs *and* yours. Agree on service levels and document them. They are the benchmark for monitoring service.
- Visit the agent's offices. Assess the appearance and organization. Always look further than the marketing and sales staff. Visit the warehouse and see how the freight actually moves.
- Evaluate information flow. Ask how account handling is documented; how personnel is trained; what kind of backup they have in emergencies.
- If your handling requirements are complex, interview and determine the experience of the operations people handling your account.
- Get the names of other major accounts handled by the agent and check their references.
- Make certain you know how general exceptions are to be handled. Most problems in shipping occur because an agent is left to assume how to handle the situation.
- Operations people on both sides should have an understanding of each other's working environment. Periodic walks through the transaction flow greatly improve the quality of communication.

Says Plimpton: "Agent's problems are not always in their control. A shipper can unknowingly contribute to an agent's deteriorating service level. Computer systems notwithstanding, it's still a people-oriented business. It's cliche, but when problems develop the root is often a failure to communicate . . . constantly."